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Washington, Saturday, May 7, 1955

TITLE 3—THE PRESIDENT

EXECUTIVE ORDER 10608

UNITED STATES AUTHORITY AND FUNCTIONS IN GERMANY

By virtue of the authority vested in me by the Constitution and the statutes, including the Foreign Service Act of 1946 (60 Stat. 999), as amended, and as President of the United States and Commander in Chief of the armed forces of the United States, it is ordered as follows:

1. Executive Order No. 10062 of June 6, 1949, and Executive Order No. 10144 of July 21, 1950, amending that order, are hereby revoked, and the position of United States High Commissioner for Germany, established by that order, is hereby abolished.

2. The Chief of the United States Diplomatic Mission to the Federal Republic of Germany, hereinafter referred to as the Chief of Mission, shall have supreme authority, except as otherwise provided herein, with respect to all responsibilities, duties, and governmental functions of the United States in all Germany. The Chief of Mission shall exercise his authority under the supervision of the Secretary of State and subject to ultimate direction by the President.

3. The United States Military Commander having area responsibility in Germany, hereinafter referred to as the Commander, shall have authority with respect to all military responsibilities, duties, and functions of the United States in all Germany, including the command, security, and stationing of United States forces in Germany, the assertion and exercise of their rights and discharge of their obligations therein, and emergency measures which he may consider essential for their protection or the accomplishment of his mission. The Commander may delegate the authority conferred upon him. If action by the Commander or any representative of the Commander, pursuant to the authority herein conferred, affects the foreign policy of the United States or involves relations or negotiations with non-military German authorities, such action shall be taken only after consultation with and agreement by the Chief of Mission or pursuant to procedures previously agreed to between the Chief of Mission and the Commander or his representative. Either the Chief of Mission or the Commander may raise with the other any question which he believes requires such consultation. If agreement is not reached between them, any differences may be referred to the Department of State and the Department of Defense for resolution.

4. The Chief of Mission and the Commander or his designated representatives shall, to the fullest extent consistent with their respective missions, render assistance and support to each other in carrying out the agreements and policies of the United States.

5. With regard to the custody, care, and execution of sentences and disposition (including pardon, clemency, parole, or release) of war criminals confined or hereafter to be confined in Germany as a result of conviction by military tribunals (A) the Chief of Mission shall share the four-power responsibility in the case of persons convicted by the International Military Tribunal, (B) the Chief of Mission shall exercise responsibility in the case of persons convicted by military tribunals established by the United States Military Governor pursuant to Control Council Law No. 10, and (C) the Commander shall exercise responsibility in the case of persons convicted by other military tribunals established by United States Military Commanders in Germany and elsewhere. The Commander shall, on request of the Chief of Mission, take necessary measures for carrying into execution any sentences adjudged against such persons in category (B) as to whom the Chief of Mission has responsibility and control. Transfer of custody of persons in categories (B) and (C) to the Federal Republic of Germany as provided in the Convention on the Settlement of Matters Arising out of the War and Occupation shall terminate the responsibility of the Chief of Mission and the Commander with respect to such persons to the extent that the responsibility of the United States for them is thereupon terminated pursuant to the provisions of the said Convention.

6. If major differences arise over matters affecting the United States Forces in Germany, such differences may be referred to the Department of State and the Department of Defense for resolution.

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FEDERAL REGISTER

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(For use during 1955)

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7. This order shall become effective on the date that the Convention on Relations between the Three Powers and the Federal Republic of Germany and related Conventions, as amended, come into force.

DWIGHT D. EISENHOWER

THE WHITE HOUSE,
May 5, 1955.

[F. R. Doc. 55-3751; Filed, May 5, 1955; 12:33 p. m.]

RULES AND REGULATIONS

TITLE 5—ADMINISTRATIVE PERSONNEL

Chapter III—Foreign and Territorial Compensation

[Dept. Reg. 108.255]

PART 325—ADDITIONAL COMPENSATION IN FOREIGN AREAS

DESIGNATION OF DIFFERENTIAL POSTS

Section 325.11 *Designation of differential posts* is amended as follows, effective on the dates indicated:

1. Effective as of the beginning of the first pay period following May 7, 1955, paragraph (b) is amended by the deletion of the following posts:

India, all posts except Bangalore, Bhopal, Bokaro, Bombay, Cuddalore, Cuttack, Gwalior, Hazaribagh, Hyderabad, Izatnagar, Kharagpur, Lucknow, Madras, Nabha, Nagpur, New Delhi, Patiala, Patna, Poona, Simla and Trivandrum.

2. Effective as of the beginning of the first pay period following May 7, 1955, paragraph (c) is amended by the deletion of the following post:

Bangalore, India.

3. Effective as of the beginning of the first pay period following May 7, 1955, paragraph (a) is amended by the addition of the following post:

Chandigarh, India.

4. Effective as of the beginning of the first pay period following February 12, 1955, paragraph (b) is amended by the addition of the following post:

Mechra-Bel-Ksiri, Morocco.

5. Effective as of the beginning of the first pay period following May 7, 1955, paragraph (b) is amended by the addition of the following posts:

India, all posts except Bangalore, Bhopal, Bokaro, Bombay, Chandigarh, Cuddalore, Cuttack, Gwalior, Hazaribagh, Hyderabad, Izatnagar, Kharagpur, Lucknow, Madras, Nabha, Nagpur, New Delhi, Patiala, Patna, Poona, Simla, Trivandrum and Vellore.

6. Effective as of the beginning of the first pay period following January 1, 1955, paragraph (d) is amended by the addition of the following post:

La Roche sur Yon, France.

7. Effective as of the beginning of the first pay period following May 7, 1955, paragraph (d) is amended by the addition of the following posts:

Bangalore, India.
Vellore, India.

(Sec. 102, Part I, E. O. 10000, 13 F. R. 5453, 3 CFR, 1948 Supp.)

For the Secretary of State.

LOY W. HENDERSON,
Deputy Under Secretary, for Administration.

APRIL 28, 1955.

[F. R. Doc. 55-3706; Filed, May 6, 1955; 8:45 a. m.]

TITLE 6—AGRICULTURAL CREDIT

Chapter III—Farmers Home Administration, Department of Agriculture

Subchapter B—Farm Ownership Loans

PART 311—BASIC REGULATIONS

SUBPART B—LOAN LIMITATIONS

AVERAGE VALUES OF FARMS; MISSOURI

For the purposes of title I of the Bankhead-Jones Farm Tenant Act, as amended, average values of efficient family-type farm-management units for the counties identified below are determined to be as herein set forth. The average values heretofore established for said counties, which appear in the tabulations of average values under § 311.29, Chapter III, Title 6 of the Code of Federal Regulations, are hereby superseded by the average values set forth below for said counties.

MISSOURI

County:	*Average value*
Adair	$20,000
Andrew	28,000
Atchison	28,000
Audrain	20,000
Barry	17,000
Barton	20,000
Bates	21,000
Benton	16,000
Bollinger	16,000
Boone	20,000
Buchanan	28,000
Butler	20,000
Caldwell	23,000
Callaway	20,000
Camden	15,000
Cape Girardeau	20,000
Carroll	27,000
Carter	15,000
Cass	22,000
Cedar	18,000
Chariton	25,000

MISSOURI—Continued

County:	*Average value*
Christian	$17,000
Clark	20,000
Clay	28,000
Clinton	28,000
Cole	20,000
Cooper	23,000
Crawford	16,000
Dade	19,000
Dallas	15,000
Daviess	22,000
De Kalb	23,000
Dent	15,000
Douglas	15,000
Dunklin	32,000
Franklin	21,000
Gasconade	20,000
Gentry	23,000
Greene	22,000
Grundy	21,000
Harrison	21,000
Henry	21,000
Hickory	15,000
Holt	28,000
Howard	22,000
Howell	15,000
Iron	15,000
Jackson	26,000
Jasper	21,000
Jefferson	20,000
Johnson	22,000
Knox	20,000
Laclede	15,000
Lafayette	28,000
Lawrence	20,000
Lewis	20,000
Lincoln	22,000
Linn	20,000
Livingston	22,000
McDonald	15,000
Macon	20,000
Madison	15,000
Maries	15,000
Marion	20,000
Mercer	19,000
Miller	15,000
Mississippi	30,000
Moniteau	20,000
Monroe	20,000
Montgomery	20,000
Morgan	17,000
New Madrid	32,000
Newton	20,000
Nodaway	28,000
Oregon	15,000
Osage	20,000
Ozark	15,000
Pemiscot	32,000
Perry	20,000
Pettis	20,000
Phelps	15,000
Pike	22,000
Platte	28,000
Polk	20,000
Pulaski	15,000
Putnam	19,000
Ralls	20,000
Randolph	20,000
Ray	26,000
Reynolds	15,000
Ripley	17,000
Saint Charles	23,000
Saint Clair	19,000
Saint Francois	18,000
Sainte Genevieve	20,000
Saint Louis	23,000
Saline	28,000
Schuyler	20,000
Scotland	20,000
Scott	30,000
Shannon	15,000
Shelby	20,000
Stoddard	28,500
Stone	15,000
Sullivan	19,000
Taney	15,000
Texas	15,000
Vernon	20,000

MISSOURI—Continued

County:	Average value
Warren	$20,000
Washington	16,000
Wayne	15,000
Webster	16,000
Worth	23,000
Wright	15,000

(Sec. 41 (i), 60 Stat. 1066; 7 U. S. C. 1015 (i). Interprets or applies sec. 3 (a), 60 Stat. 1074; 7 U. S. C. 1003 (a))

Dated this 3d day of May 1955.

[SEAL] R. B. MCLEAISH,
Administrator,
Farmers Home Administration.

[F. R. Doc. 55-3720; Filed, May 6, 1955; 8:47 a. m.]

TITLE 7—AGRICULTURE

Chapter I—Agricultural Marketing Service (Standards, Inspections, Marketing Practices), Department of Agriculture

PART 52—PROCESSED FRUITS, VEGETABLES, AND OTHER PRODUCTS (INSPECTION, CERTIFICATION, AND STANDARDS)

SUBPART—UNITED STATES STANDARDS FOR GRADES OF FROZEN BLUEBERRIES[1]

MISCELLANEOUS AMENDMENTS

Pursuant to the Agricultural Marketing Act of 1946 (60 Stat. 1087 et seq., 7 U. S. C. 1621 et seq.) and by virtue of the authority vested in me by the Secretary of Agriculture, the United States Standards for Grades of Frozen Blueberries (7 CFR 52.611 to 52.620) are amended as hereinafter set forth.

The amendments provide for a rewording of the footnote pertaining to this subpart and that the blueberries be sound and properly washed prior to freezing.

The following amendments are promulgated to become effective upon publication in the FEDERAL REGISTER:

1. Footnote 1 to the subpart title is amended in its entirety as set forth below.

2. Section 52.611 is amended in its entirety to read as follows:

§ 52.611 *Product description.* Frozen blueberries are prepared from sound, properly ripened fresh fruit of the blueberry bush (Genus Vaccinium), including species or varieties often called "huckleberries," but not of the Genus Gaylussacia; are cleaned and stemmed; are properly washed; are packed with or without packing media; and are frozen and maintained at temperatures necessary for the preservation of the product.

Notice of proposed rule making, public procedure thereon, and the delaying of the making of this document effective later than the date of its publicaton in the FEDERAL REGISTER (see section 4 of the Administrative Procedure Act; 5 U. S. C. 1001 et seq.) are impracticable, unnecessary and contrary to the public interest because: (1) The processing season for freezing blueberries will begin soon and it is desirable that these amendments be in effect by that time; and (2) additional time will not be needed for the industry to make preparation for compliance with these amendments.

(Sec. 205, 60 Stat. 1090, 7 U. S. C. 1624)

Dated: May 3, 1955.

[SEAL] ROY W. LENNARTSON,
Deputy Administrator,
Marketing Services.

[F. R. Doc. 55-3718; Filed, May 6, 1955; 8:47 a. m.]

[1] Compliance with the requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

Chapter IX—Agricultural Marketing Service (Marketing Agreements and Orders), Department of Agriculture

[Valencia Orange Reg. 34]

PART 922—VALENCIA ORANGES GROWN IN ARIZONA AND DESIGNATED PART OF CALIFORNIA

LIMITATION OF HANDLING

§ 922.334 *Valencia Orange Regulation 34*—(a) *Findings.* (1) Pursuant to Order No. 22 (19 F. R. 1741), regulating the handling of Valencia oranges grown in Arizona and designated part of California, effective March 31, 1954, under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), and upon the basis of the recommendation and information submitted by the Valencia Orange Administrative Committee, established under the said order, and upon other available information, it is hereby found that the limitation of handling of such Valencia oranges, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this section until 30 days after publication thereof in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted, under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective as hereinafter set forth. The Valencia Orange Administrative Committee held an open meeting on May 5, 1955, after giving due notice thereof, to consider supply and market conditions for Valencia oranges and the need for regulation; interested persons were afforded an opportunity to submit information and views at this meeting; the recommendation and supporting information for regulation during the period specified herein was promptly submitted to the Department after such meeting was held; the provisions of this section, including its effective time, are identical with the aforesaid recommendation of the committee, and information concerning such provisions and effective time has been disseminated among handlers of such Valencia oranges; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period herein specified; and compliance with this section will not require any special preparation on the part of persons subject thereto which cannot be completed on or before the effective date hereof.

(b) *Order.* (1) The quantity of Valencia oranges grown in Arizona and designated part of California which may be handled during the period beginning at 12:01 a. m., P. s. t., May 8, 1955, and ending at 12:01 a. m., P. s. t., May 15, 1955, is hereby fixed as follows:

(i) District 1: 231,000 boxes;

(ii) District 2: 92,400 boxes;

(iii) District 3: Unlimited movement.

(2) Valencia oranges handled pursuant to the provisions of this section shall be subject to any size restrictions applicable thereto which have heretofore been issued on the handling of such oranges and which are effective during the period specified herein.

(3) As used in this section, "handled," "handler," "boxes," "District 1," "District 2," and "District 3," shall have the same meaning as when used in said order.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Dated: May 6, 1955.

[SEAL] FLOYD F. HEDLUND,
Acting Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[F. R. Doc. 55-3794; Filed, May 6, 1955; 11:32 a. m.]

[Lemon Reg. 588]

PART 953—LEMONS GROWN IN CALIFORNIA AND ARIZONA

LIMITATIONS OF SHIPMENTS

§ 953.695 *Lemon Regulation 588*—(a) *Findings.* (1) Pursuant to the marketing agreement, as amended, and Order No. 53, as amended (7 CFR Part 953; 19 F. R. 7175), regulating the handling of lemons grown in the State of California or in the State of Arizona, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), and upon the basis of the recommendation and information submitted by the Lemon Administrative Committee, established under the said amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of the quantity of such lemons which may be handled, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this section until 30 days after publication

thereof in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient, and a reasonable time is permitted, under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective as hereinafter set forth. Shipments of lemons, grown in the State of California or in the State of Arizona, are currently subject to regulation pursuant to said amended marketing agreement and order; the recommendation and supporting information for regulation during the period specified herein was promptly submitted to the Department after an open meeting of the Lemon Administrative Committee on May 4, 1955, such meeting was held, after giving due notice thereof to consider recommendations for regulation, and interested persons were afforded an opportunity to submit their views at this meeting; the provisions of this section including its effective time, are identical with the aforesaid recommendation of the committee, and information concerning such provisions and effective time has been disseminated among handlers of such lemons; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period hereinafter specified; and compliance with this section will not require any special preparation on the part of persons subject thereto which cannot be completed by the effective time thereof.

(b) *Order.* (1) The quantity of lemons grown in the State of California or in the State of Arizona which may be handled during the period beginning at 12:01 a. m., P. s. t., May 8, 1955, and ending at 12:01 a. m., P. s. t., May 15, 1955, is hereby fixed as follows:

(i) District 1: Unlimited movement;

(ii) District 2: 500 carloads;

(iii) District 3: Unlimited movement.

(2) As used in this section, "handled," "carloads," "District 1," "District 2," and "District 3" shall have the same meaning as when used in the said amended marketing agreement and order.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Dated: May 5, 1955.

[SEAL] FLOYD F. HEDLUND,
Acting Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[F. R. Doc. 55-3761; Filed, May 6, 1955; 8:55 a. m.]

[Grapefruit Reg. 103]

PART 955—GRAPEFRUIT GROWN IN ARIZONA; IN IMPERIAL COUNTY, CALIFORNIA, AND IN THAT PART OF RIVERSIDE COUNTY, CALIFORNIA, SITUATED SOUTH AND EAST OF THE SAN GORGONIO PASS

LIMITATION OF SHIPMENTS

§ 955.364 *Grapefruit Regulation 103*—(a) *Findings.* (1) Pursuant to the marketing agreement, as amended, and Order No. 55, as amended (7 CFR Part 955), regulating the handling of grapefruit grown in the State of Arizona; in Imperial County, California, and in that part of Riverside County, California, situated south and east of the San Gorgonio Pass, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), and upon the basis of the recommendations of the Administrative Committee established under the aforesaid amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of shipments of grapefruit, as hereinafter provided, will tend to effectuate the declared policy of the act.

(2) It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this section until 30 days after publication thereof in the FEDERAL REGISTER (60 Stat. 237; 5 U. S. C. 1001 et seq.) because the time intervening between the date when information upon which this section is based became available and the time when this section must become effective in order to effectuate the declared policy of the act is insufficient; a reasonable time is permitted, under the circumstances, for preparation for such effective time; and good cause exists for making the provisions hereof effective not later than May 8, 1955. Shipments of grapefruit, grown as aforesaid, have been subject to regulation by grades and sizes, pursuant to the amended marketing agreement and order, since October 17, 1954, and will so continue until May 8, 1955; the recommendation and supporting information for continued regulation subsequent to May 7, 1955, was promptly submitted to the Department after an open meeting of the Administrative Committee on April 28; such meeting was held to consider recommendations for regulation, after giving due notice of such meeting, and interested persons were afforded an opportunity to submit their views at this meeting; the provisions of this section, including the effective time thereof, are identical with the aforesaid recommendation of the committee and information concerning such provisions and effective time has been disseminated among handlers of such grapefruit; it is necessary, in order to effectuate the declared policy of the act, to make this section effective during the period hereinafter set forth so as to provide for the continued regulation of the handling of grapefruit; compliance with this section will not require any special preparation on the part of persons subject thereto which cannot be completed by the effective time thereof.

(b) *Order.* (1) During the period beginning at 12:01 a. m., P. s. t., May 8, 1955, and ending at 12:01 a. m., P. s. t., August 31, 1955, no handler shall ship:

(i) Any grapefruit of any variety grown in the State of Arizona; in Imperial County, California; or in that part of Riverside County, California, situated south and east of the San Gorgonio Pass unless such grapefruit grade at least U. S. No. 2: *Provided,* That not to exceed a total of 20 percent, by count, of the grapefruit in any lot may fail to meet the requirements of the U. S. No. 2 grade, but such total of 20 percent may not include more than 15 percent, by count, of grapefruit failing to meet the requirements of the U. S. No. 2 grade because of serious damage by dryness or mushy condition; or

(ii) From the State of California or the State of Arizona to any point outside thereof, any grapefruit, grown as aforesaid, which are of a size smaller than $3\frac{3}{16}$ inches in diameter ("diameter" to be measured midway at a right angle to a straight line running from the stem to the blossom end of the fruit), except that a tolerance of 5 percent, by count, of grapefruit smaller than the foregoing minimum size shall be permitted which tolerance shall be applied in accordance with the provisions for the application of tolerance, specified in the revised United States Standards for Grapefruit (California and Arizona), 7 CFR 51.925–955: *Provided,* That, in determining the percentage of grapefruit in any lot which are smaller than $3\frac{3}{16}$ inches in diameter, such percentage shall be based only on the grapefruit in such lot which are of a size $3\frac{1}{16}$ inches in diameter and smaller.

(2) As used in this section, "handler," "variety," "grapefruit," and "ship" shall have the same meaning as when used in said amended marketing agreement and order; and the terms "U. S. No. 2," "serious damage," and "dryness or mushy condition" shall have the same meaning as when used in the revised United States Standards for Grapefruit (California and Arizona), §§ 51.925 to 51.955 of this title.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Dated: May 4, 1955.

[SEAL] S. R. SMITH,
Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[F. R. Doc. 55-3731; Filed, May 6, 1955; 8:49 a. m.]

PART 971—MILK IN THE DAYTON-SPRINGFIELD, OHIO, MARKETING AREA

ORDER TERMINATING CERTAIN PROVISION; CLASS III MILK PRICES

Pursuant to the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U. S. C. 601 et seq.), hereinafter referred to as the "act," and of the order, as amended (7 CFR Part 971), regulating the handling of milk in the Dayton-Springfield, Ohio, marketing area, hereinafter referred to as the "order", it is hereby found and determined that:

(a) In § 971.53 (b) of the order the provision "in barrels" does not tend to effectuate the declared policy of the act;

(b) Notice of proposed rule making and public procedure thereon in connection with the issuance hereof is impracticable, unnecessary and contrary to the public interest, in that (1) the infor-

mation on which this action is based did not become available in sufficient time for such compliance; (2) the issuance of this termination order effective as set forth below is necessary to reflect current marketing conditions and facilitate, promote and maintain the orderly marketing of milk produced for the said marketing area; (3) on April 8, 1955, the Market News Service of the Department of Agriculture stopped reporting Chicago price quotations for roller process nonfat dry milk solids for human consumption in drums and barrels. This was done because too few sales were being made in drums and barrels to report such prices. Most price quotations now relate to sales in bags and this series is being continued by the Market News Service.

It is therefore ordered, That in § 971.53 (b) the provision "in barrels" be and hereby is terminated effective immediately.

(Sec. 5, 49 Stat. 753, as amended; 7 U. S. C. 608c)

Done at Washington, D. C., this 3d day of May 1955.

[SEAL] EARL L. BUTZ,
Assistant Secretary.

[F. R. Doc. 55-3719; Filed, May 6, 1955; 8:47 a. m.]

TITLE 36—PARKS, FORESTS, AND MEMORIALS

Chapter I—National Park Service, Department of the Interior

PART 20—SPECIAL REGULATIONS

OLYMPIC NATIONAL PARK

1. Subparagraph (4) of paragraph (a) *Fishing; open season* paragraph (b) *Fishing; closed waters* paragraph (c) *Fishing; size limits* paragraph (g) *Fishing; license* paragraph (h) *Speed* of § 20.28 *Olympic National Park* are amended to read as follows:

(a) *Fishing; open season.* * * *

(4) In that part of the Olympic National Park known as the Queets Corridor and Olympic Ocean Strip and other areas, which were added to the Park by Proclamation of the President, dated January 6, 1953 (18 F. R. 169), fishing shall be done in conformity with the laws and regulations promulgated by the State of Washington for these areas.

(b) *Fishing; closed waters.* The following waters and their tributaries are closed to fishing:

Cat Creek.
Entire Morse Creek watershed except Lake Angeles and P. J. Lake.

(c) *Fishing; size limits.* Steelheads less than 12 inches in length and fish of any other species less than 6 inches in length, when caught, shall be released by carefully handling with moist hands and returned at once to the water.

* * * * * *

(g) *Fishing; license.* A State or County Fishing license is required for fishing in Lake Angeles located in Section 15, T. 29 N., R. 6 W., W. M.; and within those portions of Olympic National Park known as the Queets Corridor and Olympic Ocean Strip, and in Sections 1 to 6 inclusive, T. 27 N., R. 11 W., W. M., and in Sections 1 to 3, inclusive, T. 27 N., R. 12 W., W. M., which were added to the park by proclamation of the President, dated January 6, 1953 (18 F. R. 169).

(h) *Speed.* Speed limits in the Park, except in emergencies as provided in § 1.42 (b) of this chapter are as follows:

(1) Basic Speed Rules:

(i) Every person operating or driving a vehicle of any character upon the roads in Olympic National Park shall operate the same in a careful and prudent manner and at a rate of speed no greater than is reasonable and proper under the conditions existing at the point of operation, taking into account the amount and character of the traffic, weight of vehicle, grade and width of highway, condition of surface and freedom of obstruction to view ahead and consistent with any and all conditions existing at the point of operation so as not to unduly or unreasonably endanger the life, limb, property or other rights of any person entitled to the use of such roads.

(ii) The operator of any motorized vehicle, when entering a curve on any narrow road, must exercise due care to the extent that he or she is at all times able to bring the vehicle to a full stop within one-half of the unobstructed sight distance ahead.

(iii) No vehicle shall pass a school bus loading or unloading passengers.

(2) Maximum speed 25 miles per hour.

(i) When upon that portion of any highway which passes through or borders upon a public campground, parking area, or other place of public assemblage and when upon the following public roads:

Deer Park road.
Dosewallips road.
Hurricane Ridge road above Elwha Ranger Station area.
North Fork Quinault road east of Finley Creek.
Staircase road.

(ii) When approaching or traversing a section of highway posted as "Construction" or "Men Working" or similarly, unless a lesser speed limit is posted.

(3) Maximum speed 35 miles per hour:

(i) When upon the following roads:

East Beach road—Lake Crescent.
East Fork Quinault road.
Elwha to Olympic Hot Springs road.
Hoh road.
North Fork Quinault road west of Finley Creek.
North Shore road—Lake Crescent.
Queets road.
Rialto Beach road.
Soleduck road.

(ii) Maximum speed of trucks, or combinations of trucks and trailers, having a gross weight of 10,000 pounds is limited to 35 miles per hour on U. S. Highway 101 and to 25 miles per hour on all other park roads.

(4) Special speed limits:

(i) Whenever the Superintendent, Olympic National Park, determines that a temporary condition or situation exists upon or adjacent to a road, which requires a reduced speed limit, the Superintendent may designate a lesser speed limit, which shall be effective when appropriate signs giving notice thereof are erected upon such road.

(5) Due care required: Compliance with speed requirements as set forth in this paragraph shall not relieve the operator of any vehicle from the further exercise of due care and caution as further circumstances shall require.

2. A new paragraph (j), reading as follows, is added to § 20.28:

(j) *Dogs and cats.* Dogs and cats, under physical restrictive control, are permitted on public highways only while in transit status, and are permitted only in such developed areas as are accessible by road. Such animals are prohibited in public eating establishments, community kitchens, and swimming pools located on Government lands.

(Sec. 3, 39 Stat. 535, as amended, 16 U. S. C. 3)

Issued this 15th day of April 1955.

[SEAL] FRED J. OVERLY,
Superintendent,
Olympic National Park.

[F. R. Doc. 55-3707; Filed, May 6, 1955; 8:45 a. m.]

TITLE 46—SHIPPING

Chapter II—Federal Maritime Board, Maritime Administration, Department of Commerce

Subchapter C—Regulations Affecting Subsidized Vessels and Operators

[Gen. Order 27, Rev., Supp. 1]

PART 281—INFORMATION AND PROCEDURE REQUIRED UNDER OPERATING-DIFFERENTIAL SUBSIDY AGREEMENTS

METHOD OF COMMENCING AND TERMINATING VOYAGES AND OF LAY-UP PERIODS

Effective May 1, 1955, § 281.3 *Method of commencing and terminating voyages and of lay-up periods* (General Order 27, Rev., 18 F. R. 910, February 14, 1953) is hereby amended by adding a new paragraph designated "(e)" at the end thereof to read as follows:

(e) *Excessive delays in United States Ports.* Whenever a vessel is delayed in a continental United States port during a voyage for a period of ten days or more in excess of its normal period of operations in said port, the operator immediately shall report said circumstance, together with all pertinent facts, to the Coast Director. The Coast Director shall determine whether or not said delay was justified and if operating costs for said period were reduced to a minimum in accordance with sound commercial practice.

(Sec. 204, 49 Stat. 1987, as amended; 46 U. S. C. 1114)

Dated: May 5, 1955.

By order of the Maritime Administrator.

[SEAL] GEO. A. VIEHMANN,
Assistant Secretary.

[F. R. Doc. 55-3758; Filed, May 6, 1955; 8:55 a. m.]

TITLE 14—CIVIL AVIATION

Chapter II—Civil Aeronautics Administration, Department of Commerce

[Amdt. 140]

PART 609—STANDARD INSTRUMENT APPROACH PROCEDURES

PROCEDURE ALTERATIONS

The standard instrument approach procedure alterations appearing hereinafter are adopted to become effective when indicated in order to promote safety. Compliance with the notice, procedures, and effective date provisions of section 4 of the Administrative Procedure Act would be impracticable and contrary to the public interest, and therefore is not required.

Part 609 is amended as follows:

NOTE: Where the general classification (LFR, VAR, ADF, ILS, GCA, or VOR), location, and procedure number (if any) of any procedure in the amendments which follow, are identical with an existing procedure, that procedure is to be substituted for the existing one, as of the effective date given, to the extent that it differs from the existing procedure; where a procedure is canceled, the existing procedure is revoked; new procedures are to be placed in appropriate alphabetical sequence within the section amended.

1. The low frequency range procedures prescribed in § 609.6 are amended to read in part:

LFR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.
If an LFR instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below.

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
ANCHORAGE, ALASKA. Merrill Field, 139'. SBRAZ-VPDTX ANC. Procedure No. 1. Amendment No. 6. Effective date: May 28, 1955. Supersedes Amendment No. M-5, dated June 24, 1954. Major changes: New format.	Jewel Lake FM (final) NE course not authorized due to danger area D-348.	012—5	800	Nonstandard W side SW course: 192° outbound. 012° inbound. 1,500' within 10 miles.	800	012—0.9	2 engines or less T-dn C-dn A-dn More than 2 engines T-dn C-dn A-dn	 300-1 500-1 800-2 ---------- ----------	 300-1 500-1½ 800-2 200-½ 500-1½ 800-2	Within 0.9 mile, climb to 1,500' on NW course (296°) Anchorage LFR to Susitna Intersection. CAUTION: Mountains 8 miles E and TV tower 348' mean sea level 1 mile WNW of airport.
ANNETTE, ALASKA. Annette Airport, 119'. SBRAZ-VPDTX ANN. Procedure No. 1. Effective: May 19, 1955. Amendment No. 7 supersedes No. M-6 dated April 26, 1954. Major changes: 1. New format; 2. Minimums revised to agree with ILS minimums for circling; 3. Straight-in minimums reduced to coincide with circling minimums.	----------	----------	----------	Nonstandard** W side of S course: 141° outbound. 321° inbound. 1,500' within 10 miles.	800	123—1.8	2 engines or less T-dn C-dn S-dn A-dn More than 2 engines T-dn C-dn S-dn A-dn	 *300-1 500-1½ 500-1½ 800-2 ---------- ---------- ---------- ----------	 *300-1 500-2 500-2 800-2 *200-½ 500-2 500-1½ 800-2	Within 0 mile after passing Annette LFR turn left, climb to 2,800' on S course of Annette LFR within 25 miles. *Runway 2. T-d 600-1; T-n not authorized. Runway 2-20 unlighted. Turn left immediately after takeoff Runway 2. CAUTION: Mountainous terrain to 2,900' 3½ miles NE 3,600' 6 miles NE 1,000' contour within 2 miles of airport N through E. **Nonstandard procedure turn for more favorable terrain.

LFR STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft: 75 m. p. h. or less	Type aircraft: More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
BISMARCK, N. DAK. Municipal, 1,653'. SBRAZ-VDT-BIS. Procedure No. 1. Effective date: May 28, 1955. Amendment No. 6. Supersedes No. 5, dated August 15, 1953. Major changes: (1) Frequency deleted, column 1; (2) adds initial approach from BIS-VOR and deletes MEA all directions; (3) Item 7, distance revised; (4) Format revised in accordance with policy; (5) Item 11, missed approach altitude revised to conform to airway altitude.	Bismarck VOR	290—2.2	3,000	S side E course: 070° outbound. 250° inbound. 3,400' within 10 miles.	2,900	255—2.2	2 engines or less T-dn C-d C-n A-dn More than 2 engines T-dn C-dn A-dn	300-1 500-1 500-1½ 800-2 ---------- ----------	300-1 500-1 500-1½ 800-2 *200-½ 500-1½ 800-2	Within 2.4 miles, climb to 3,800' on W course to within 25 miles. *300-1 required on runways 2, 20, 8, 26, 35, and 17. CAUTION: Towers 1,800' and 1,756' mean sea level 2 miles N and 0.5 mile S respectively from airport. Tower 2,413' mean sea level 11 miles NE of airport. Tower 2,082' mean sea level 3 miles NNW of airport.
FORT WORTH, TEX. Meacham, 692'. SBRAZ-FTW. Procedure No. 1. Amendment 8. Effective: May 28, 1955. Supersedes Amendment 7, September 10, 1954. Major changes: Raise procedure turn altitude. Add caution note. Simplify notes.	Haslet Intersection (final)	165—8	1,400	W side N course: 345° outbound. 165° inbound. 2,000' within 10 miles.	1,400	178—2.4	2 engines or less T-dn C-dn S-dn 17 A-dn More than 2 engines T-dn C-dn S-dn 17 A-dn	300-1 500-1 400-1 800-2 ---------- ---------- ---------- ----------	300-1 600-1 400-1 800-2 200-½ 600-1½ 400-1 800-2	Within 2.4 miles, climb to 2,000' on S course within 25 miles. CAUTION: Building 956' mean sea level located 0.6 mile south of LFR on final approach course TV Tower 1,743' mean sea level located 5.5 miles E of south course. AIR CARRIER NOTES: Take-off on Runway 9-27 and 13-31 not authorized with less than 300-1. Reduction in landing minima not authorized on cargo and ferry flights.
FORT WORTH, TEX. Meacham 692' SBRAZ-FTW. Procedure No. 2. Amendment 7. Effective: May 28, 1955. Supersedes Amendment 6, dated Feb. 6, 1954. Major changes: Change final approach altitude. Add caution notes. Simplify notes.	Stadium Intersection (final)	358—5	1,500	W side S course: 178° outbound. 358° inbound. 2,000' within 10 miles.	1,500 Rockwood FM	358—2.6 Rockwood FM	2 engines or less T-dn C-dn S-dn 35 A-dn More than 2 engines T-dn C-dn S-dn 35 A-dn	300-1 500-1 400-1 800-2 ---------- ---------- ---------- ----------	300-1 600-1 400-1 800-2 200-½ 600-1½ 400-1 800-2	Within 2.6 miles climb to 2,000' on N course within 25 miles. CAUTION: Tank 864' mean sea level located 1.5 miles W of course between Rockwood FM and airport. 1,743' mean sea level TV tower located 5.5 miles E of S course. AIR CARRIER NOTES: Takeoff on Runways 9-27 and 13-31 not authorized with less than 300-1. Reduction in landing minima not authorized on cargo and ferry flights.
VICHY, MO. Vichy, 1,148'. BMRLZ-VDT. Procedure No. 1. June 10, 1954.	PROCEDURE CANCELED EFFECTIVE MARCH 31, 1955, DUE TO FIELD BEING DISCONTINUED.									

2. The automatic direction finding procedures prescribed in § 609.8 are amended to read in part:

ADF STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.
If an ADF instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below.

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft: 75 m. p. h. or less	Type aircraft: More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
JUNEAU, ALASKA. Juneau Airport, 26'. RBN-HWFM SSR. Procedure No. 1. Amendment No. 3. Effective: May 19, 1955. Supersedes Amendment 2 dated June 24, 1954. Major changes: New format. To add air carrier note.	----------			W side of course: 285° outbound. 105° inbound. 3,500' within 25 miles.	1,500 Descend to 1,500' after passing Pleasant Isle FM.	Sisters Island to Juneau VFR 29 miles.	2 engines or less			Within 3 miles on track 105° mag, turn left, climb to 4,500' on course 285° between Sisters Island Rbn and Gustavus LFR. CAUTION: Mountainous terrain to 3,000' 5 miles N of SE course Gustavus LFR. Advise all turns at Sisters Island be made left or E of track 105° magnetic. *AIR CARRIER NOTE: IFR takeoff minimums for air carriers holding authorizations for Juneau Airport, day 800–2, night Runway 25 only 3,000–10 no precipitation, Auke Mountain Visible.
							T-d	700–2	1,000–2	
							T-n	NA	NA	
							C-d	700–2	1,000–2	
							C-n	NA	NA	
							A-d	BCOB	BCOB	
								800–2	1,000–3	
							A-n	NA	NA	
							More than 2 engines			
							T-d	----------	*1,000–3	
							T-n	----------	*NA	
							C-d	----------	1,000–3	
							C-n	----------	NA	
							A-d	----------	BCOB	
									1,000–3	
							A-n	----------	NA	
JUNEAU, ALASKA. Juneau Airport, 26'. SBRAZ-PDVT GST. RBN-HWFM SSR. Procedure No. 2 Amendment No. 2. Effective: May 19, 1955. Supersedes Amendment M-1, June 24, 1954. Major changes: New format. Add air carrier note.	----------			W side NW course Gustavus LFR: 285° outbound. 105° inbound. 2,700' within 10 miles. Turns beyond 10 miles not authorized.	1,500 at Pleasant Isle FM	Variable VFR to Juneau 29 miles from SSR	2 engines or less			Within 8 miles after passing Pleasant Isle FM, climb to 1,500' on Sisters Island Radiobeacon thereafter turn left, climb to 4,500' on course 285° between Sisters Island Radiobeacon and Gustavus LFR. CAUTION: Mountainous terrain to 3,000' 5 miles N of SE course Gustavus LFR. *AIR CARRIER NOTE: IFR takeoff minimums for air carriers holding authorizations for Juneau Airport, day 800–2, night Runway 25 only 3,000–10 no precipitation, Auke Mountain Visible.
							T-d	700–2	1,000–2	
							T-n	NA	NA	
							C-d	700–2	1,000–2	
							A-d	BCOB	BCOB	
								800–2	1,000–3	
							A-n	NA	NA	
							More than 2 engines			
							T-d	----------	*1,000–3	
							T-n	----------	*NA	
							C-d	----------	1,000–3	
							C-n	----------	NA	
							A-d	----------	BCOB	
									1,000–3	
							A-n	----------	NA	
ST. PAUL ISLAND, ALASKA. St. Paul Airport, 42'. HW-K. Procedure No. 1. Amendment No. 4. Effective date: May 19, 1955. Supersedes Amendment M-3 dated April 26, 1954. Major changes: Field elevation corrected to 42'. Item No. 7 corrected to 023–2.8. New format.	----------			S side of course: 225° outbound. 045° inbound. 1,500' within 10 miles.	700	023—2.8	2 engines or less			Within 0 mile, turn right, climb on course 100° outbound to 2,000' within 25 miles. NOTE: *Item 8, 300–1 runway 18 with (left) E turn after takeoff.
							(*) T-d	500–2	500–2	
							C-d	700–2	700–2	
							A	NA	NA	
							More than 2 engines			
							(*) T-d	----------	500–2	
							C-d	----------	700–2	
							A	----------	NA	

3. The very high frequency omnirange procedures prescribed in § 609.9 (a) are amended to read in part:

VOR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.
If a VOR instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below.

City and State; airport name, elevation; facility: class and identification; procedure No.; effective date	Initial approach to facility from—	Course and distance	Minimum altitude (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude over facility on final approach course (ft.)	Course and distance, facility to airport	Ceiling and visibility minimums			If visual contact not established at authorized landing minimums after passing facility within distance specified, or if landing not accomplished
							Condition	Type aircraft		
								75 m. p. h. or less	More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11
BEAUMONT, TEX. Jefferson County, 15'. BVOR-BUJ. Procedure No. 1. Amendment 2. Effective: May 28, 1955. Supersedes Amendment 1, dated January 15, 1954. Major changes: New format. Correct distances and headings, items 3 and 11.	Beaumont LFR	204—8.0	1,200	S side of course: 236° outbound. 056° inbound. 1,200' within 10 miles.	700	056—5.3	2 engines or less T-dn C-dn A-dn	300-1 400-1 800-2	300-1 500-1 800-2	Within 5.3 miles climb to 1,400' on radial 064° within 25 miles.
							More than 2 engines T-dn C-dn A-dn	---------- ---------- ----------	200-½ 500-1½ 800-2	
KANSAS CITY, KANS. Fairfax, 746'. BVOR-MKC. Procedure No. 1. Effective date: May 28, 1955. Amendment No.: Original. Supersedes No.: None. Major changes: None. Provides VOR approach to Fairfax.	Kansas City LFR	002—8.0	2,500	W side of course: 357° outbound. 177° inbound. 2,500' within 10 miles. Not authorized beyond 10 miles account ATC.	1,900	177—8.6	2 engines or less (#) T-dn C-dn A-dn	(##) 300-1 500-1½ 800-2	(##) 300-1 700-1½ 800-2	Within 8.6 miles, turn right immediately, climb to 2,500' and intercept 310° ADF track to Farley Radiobeacon, then proceed to and hold at Farley Radiobeacon, or when directed by ATC, turn right immediately, climb to 2,400' on SW course MKC-LFR within 25 miles. CAUTION: Obstruction 1,423' mean sea level 3 miles SE of airport, 1,949' TV tower 6.2 miles SE airport. Cracking plant 911', mean sea level and stack 853' mean sea level, 0.5 mile ESE approach end Runway 35. TV tower 2,049' mean sea level 4.5 miles SSE airport. #Takeoffs to S or SW when weather is below 1,000-3 will intercept a 210° ADF track from ILS MM or the 185° MKC radial outbound as soon as practicable, after takeoff, maintain track on course until reaching 2,500' prior to making left turn due to 2,049' mean sea level TV tower 4.6 miles SSE of airport. When KMBC TV tower not visible (6.2 miles SE airport) on N, NE, E and SE takeoffs, climb to 2,500' mean sea level on 090° ADF track from MKC-LFR prior to turning towards tower. AIR CARRIER NOTES: ##No reduction in 2 engine takeoff minimums authorized when ILS is inoperative except on Runway 31. *200-½ authorized on Runway 31 only. Radar transit on altitudes based on distance from radar site.
	Radar transitions within 25 miles as directed by ATC: S and E quadrants of MKC-LFR.		3,000		Intersection NE course MKC-LFR and 177° radial MKC-VOR 1,500'.	Intersection NE course MKC-LFR and 177° radial MKC-VOR 177—1.2.				
	S and E quadrants of MKC-LFR with 3 miles separation from 2,049' tower 4.5 miles SSE and 1,949' tower 6.2 miles SE of airport.		2,500				More than 2 engines (#) T-dn C-dn A-dn	---------- ---------- ----------	(*) 300-1 700-1½ 800-2	
	N and W quadrants MKC-LFR.		2,500				This procedure authorized only for aircraft equipped to receive VOR and LF simultaneously.			
VICHY, MO. Vichy, 1,148' Procedure No. 1. July 15, 1954.	PROCEDURE CANCELED EFFECTIVE MARCH 31, 1955, DUE TO FIELD BEING DISCONTINUED.									

4. The instrument landing system procedures prescribed in § 609.11 are amended to read in part:

ILS STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, and courses are magnetic. Distances are in statute miles unless otherwise indicated. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation.
If an ILS instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure authorized by the Administrator for Civil Aeronautics for such airport. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below:

City and State; airport name, elevation; facility; class and identification; procedure No.; effective date	Transition to ILS				Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude at glide slope intercep-tion inbound (ft.)	Altitude of glide slope and distance to approach end of runway at—		Ceiling and visibility minimums			If visual contact not established upon descent to authorized landing minimums or if landing not accomplished
	From—	To—	Course and distance	Minimum altitudes (ft.)			Outer marker	Middle marker	Condition	Type aircraft: 75 m.p.h. or less	Type aircraft: More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11	12	13
ANNETTE, ALASKA. Annette Airport, 119'. ILS-"I-ANN". FMHW-"GVN". Combination ILS-ADF. Procedure No. 1. Amendment: Original. Effective date: May 19, 1955.	Annette LF Range	FMHW	303	4,000	Nonstandard E side NW course: 303° outbound. 123° inbound. 4,000' within 10 miles.	ILS 3,521 ADF 3,700 over FMHW	(**) 3,521—11.0 FMH 710—1.8 "ANN" SBRAZ	358—0.6	2 engines or less T-dn C-dn S-dn Runway 12 ILS ADF A-dn ILS ADF More than 2 engines T-dn C-dn S-dn Runway 12 ILS ADF A-dn ILS ADF	 *300-1 500-1½ 400-1 500-1 600-2 800-2 ---------- ---------- ---------- ---------- ---------- ----------	 *300-1 500-2 400-1 500-1 600-2 800-2 *200-½ 500-2 400-1 500-1 600-2 800-2	Climb to 2,800' on S course ANNETTE LFR within 25 miles. **CAUTION: Glide slope angle set at 3.27° to obtain obstruction clearance. Terrain to 3,600' 6 miles NE of airport. 1,000' contour line within 2 miles of airport N through E. *Runway 2, T-d 600-1; T-n not authorized; Runway 2-20 unlighted.
CHATTANOOGA, TENN. Lovell Field, 682'. ILS-ICHA. N. CHA MHW-CQN. Combination ILS and ADF. Procedure No. 1. Amendment 3. Effective: May 28, 1955. Supersedes Amendment 2 dated Aug. 27, 1954. Major changes: Adds Chicamauga and Whitwell transitions.	Chattanooga LFR	North CHA MHW.	011—6.0	2,200	E side of NE course: 015° outbound. 195° inbound. 2,500' within 10 miles of N. CHA MHW.	ILS 2,500 ADF 2,500 over N. CHA MHW	1,900—4.7 ADF over LOM 1,900	890—0.7	2 engines or less T-dn C-dn S-19 dn ILS ADF More than 2 engines C-dn C-dn S-19-dn ILS ADF All aircraft A-dn ILS ADF	 300-1 600-1½ 300-¾ 500-1 ---------- ---------- ---------- ---------- 600-2 800-2	 300-1 700-1½ 300-¾ 500-1 200-½ 700-2 300-¾ 500-1	Climb to 3,300' on SW course ILS or 8.9 miles after passing N. CHA MHW (ADF) climb to 3,300' on course of 195°. 500-¾ required when glide slope not utilized. No approach lights. AIR CARRIER NOTES: Takeoff on runways 14-32 not authorized with less than 300-1. Application of sliding scale to straight-in minima not authorized.
	Daisy FM	North CHA MHW.	249—3.5	2,200								
	Signal Mt. Intersection	North CHA MHW.	090—8.0	2,200								
	Chattanooga VOR	ILS OM	351—10.0	2,300								
	Chicamauga Intersection	North CHA MHW.	015—21.0	2,200								
	Whitwell Intersection	North CHA MHW.	078—13.0	3,300								

ILS STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

City and State; airport name, elevation; facility; class and identification; procedure No.; effective date	Transition to ILS: From—	Transition to ILS: To—	Transition to ILS: Course and distance	Transition to ILS: Minimum altitudes (ft.)	Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude at glide slope interception inbound (ft.)	Altitude of glide slope and distance to approach end of runway at— Outer marker	Altitude of glide slope and distance to approach end of runway at— Middle marker	Ceiling and visibility minimums: Condition	Ceiling and visibility minimums: Type aircraft: 75 m. p. h. or less	Ceiling and visibility minimums: Type aircraft: More than 75 m. p. h.	If visual contact not established upon descent to authorized landing minimums or if landing not accomplished
1	2	3	4	5	6	7	8	9	10	11	12	13
CHATTANOOGA, TENN. Lovell Field, 682'. ILS-ICHA. VOR-CHA. Back course ILS. Procedure No. 2. Amendment 2. Effective: May 28, 1955. Supersedes Amendment 1 dated August 27, 1954. Major changes: Adds Chicamauga transition.	North Chattanooga MHW.	Fort Oglethorpe Intersection.	195—14.0	2,300	E side of SW course: 195° outbound. 015° inbound. 2,200' within 10 miles of Fort Oglethorpe Intersection.	Over Fort Oglethorpe 1,600	No glide slope. Fort Oglethorpe Intersection 3.8		2 engines or less: T-dn / C-dn / S-1 dn	300-1 / 600-1½ / 400-1	300-1 / 700-1½ / 400-1	Within 3.8 miles of Fort Oglethorpe Intersection climb to 2,500' on NE corners ILS within 25 miles. AIR CARRIER NOTES: Takeoff on Runway 14-32 not authorized with less than 300-1.
	ILS OM	Fort Oglethorpe Intersection.	195—10.0	2,300					More than 2 engines: T-dn / C-dn / S-1 dn	---------- / ---------- / ----------	200-½ / 700-2 / 400-1	
	Chattanooga VOR	Fort Oglethorpe Intersection.	280—4.0	2,100					All aircraft: A-dn	800-2		
	Chattanooga LFR	Fort Oglethorpe Intersection.	198—8.0	2,300								
	Rossville Intersection	Fort Oglethorpe Intersection.	100—5.0	2,300								
	Chicamauga Intersection	Fort Oglethorpe Intersection.	015—7.0	2,100								
FORT WORTH, TEX. Meacham, 692'. ILS-IFTW. Procedure No. 1. Amendment 8. Effective: May 28, 1955. Supersedes Amendment M-7, April 22, 1954. Major changes: Add caution note. Simplify notes.	Haslet MHW	North course ILS.	219—2.0	1,900	W side N course: 354° outbound. 174° inbound. 2,000' within 10 miles.	2,000	2,000—4.1	950—0.7	2 engines or less: T-dn / C-dn / S-dn 17 / A-dn	300-1 / 500-1 / 300-¾ / 600-2	300-1 / 600-1 / 300-¾ / 600-2	Climb to 2,000' on S course ILS within 25 miles. CAUTION: 956' building 2.4 miles S of OM 1,743' tower 5.5 miles E of ILS S course. 600-¾ required when G/S not utilized. AIR CARRIER NOTES: Takeoff on runways 9-27 and 13-31 not authorized with less than 300-1. Reduction in landing minima not authorized on cargo or ferry flights.
	Fort Worth LFR	OM	350—1.5	1,900					More than 2 engines: T-dn / C-dn / S-dn 17 / A-dn	---------- / ---------- / ---------- / ----------	200-½ / 600-1½ / 300-¾ / 600-2	
	Fort Worth VOR	OM	057—10	2,000								
HARRISBURG, PA. State, 347'. ILS-HAR. Procedure No. 1. Amendment Original. Effective date: April 28, 1955.	Harrisburg LFR	LOM	253—8	2,600	S side W course: 079° inbound. 259° outbound. 2,600' within 15 miles.	Minimum altitude over LOM 2,600	No glide slope. 8.2	2.0	2 engines or less: T-d / T-n / S-S: d / n / C-dn / A-dn	500-1 / 500-2 / 600-1½ / 600-2 / 1,000-2 / 1,000-2	500-1 / 500-2 / 600-1½ / 600-2 / 1,000-2 / 1,000-2	Climb to 2,500' on back course ILS within 15 miles. CAUTION: Circling minimums do not provide standard clearance over 1,136' ridge and tower 1.6 miles S of airport. AIR CARRIER NOTES: Landing on Runway 2 authorized only during daylight hours with ceiling 1,500' or better. Takeoff on Runway 20 not authorized. ADF approach not authorized. CAUTION: Nonstandard instrument landing system. Approaches not authorized with any commissioned component inoperative.
	Harrisburg VOR	LOM	185—4.5	2,600								
	Intersection W course Harrisburg LFR or VOR radial 284° and 150° bearing to LOM.	LOM	150—6	2,600					More than 2 engines: T-d / T-n / S-S: d / n / C-dn / A-dn	---------- / ---------- / ---------- / ----------	500-1 / 500-2 / 600-1½ / 600-2 / 1,000-2 / 1,000-2	
	Intersection Harrisburg VOR radical 173° and W course ILS.	LOM	259—1.0	2,600								

ILS STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

City and State; airport name, elevation; facility; class and identification; procedure No.; effective date	Transition to ILS				Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude at glide slope interception inbound (ft.)	Altitude of glide slope and distance to approach end of runway at—		Ceiling and visibility minimums			If visual contact not established upon descent to authorized landing minimums or if landing not accomplished
	From—	To—	Course and distance	Minimum altitudes (ft.)			Outer marker	Middle marker	Condition	Type aircraft: 75 m.p.h. or less	Type aircraft: More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11	12	13
KANSAS CITY, KANS. Fairfax, 746'. ILS-MKC LOM-MK. Procedure No. 1. Effective date: May 28, 1955. Amendment No.: Original. Supersedes No.: None. Major changes: None.	Kansas City LFR	LOM	028—5.0	2,500	W side of course: 004° outbound. 184° inbound. 2,500' within 10 miles. Not authorized beyond 10 miles account ATC.	ILS 2,500	2,558—4.9	From Bluff FM 1,460—0.8	2 engines or less			
	Kansas City VOR	LOM	152—4.0	2,500		ADF 2,500 over LOM			(#) T-dn	(##) 300–1	(##) 300–1	Within 4.3 miles, or at Bluff FM, make right climbing turn, climb to 2,500' and intercept 310° bearing to Farley Radiobeacon, then proceed to and hold at Farley Radiobeacon, or when directed by ATC, make right climbing turn, climb to 2,400' on SW course MKC–LFR within 25 miles; or if VHF equipped only, make right climbing turn, climb to 2,400' on 210° radial outbound from MKC–VOR within 25 miles.
	Kansas City VOR	N course ILS	131—3.0	2,500					C-dn	700–1	700–1	
	Liberty Radiobeacon	LOM	241—12.0	2,500					A-dn	800–2	800–2	
	Liberty Radiobeacon	N course ILS	251—11.0	2,500				Course Bluff marker to airport 224°	More than 2 engines			
	Farley Radiobeacon	LOM	107—15.0	2,500					(#) T-dn		(*) 300–1	
	Farley Radiobeacon	N course ILS	098—15.0	2,500					C-dn		700–1½	
	Blue Springs VOR	LOM	298—20.0	3,000					A-dn		800–2	
	Radar transitions within 25 miles as directed by ATC: S and E quadrants of MKC–LFR with 3 miles separation from 2,049' tower 4.5 miles SSE and 1,949' tower 6.2 miles SE of airport.			2,500								CAUTION: Obstruction 1,423' mean sea level 3 miles SE airport 1,949' TV tower 6.2 miles SE airport; cracking plant 911' mean sea level and stack 835' mean sea level 0.5 miles ESE approach end Runway 35, TV tower 2,049' mean sea level 4.5 miles SSE airport.
	N and W quadrants MKC–LFR.			2,500								#Takeoffs to S or SW, when weather is below 1,000–3 will intercept a 210° ADF track from ILS MM or the 185° MKC radial outbound as soon as practicable. After takeoff, maintain track on course until reaching 2,500' prior to making left turn due to 2,049' mean sea level TV tower 4.8 miles SSE of airport. When KMBC TV tower not visible (6.2 miles SE of airport) on N, NE, E, and SE takeoffs, climb to 2,500' mean sea level on 090° ADF track from MKC–LFR prior to turning towards tower. Radar transition altitudes are determined from radar sites.
	S and E quadrants of MKC–LFR.			3,000								AIR CARRIER NOTES: ##No reduction in 2 engine takeoff minimums authorized when ILS is inoperative except on Runway 31. *200–½ authorized on Runway 31 only. Radar transition altitudes based on distance from radar site.

ILS STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

City and State; airport name, elevation; facility; class and identification; procedure No.; effective date	Transition to ILS				Procedure turn (—) side of final approach course (outbound and inbound); altitudes; limiting distances	Minimum altitude at glide slope interception inbound (ft.)	Altitude of glide slope and distance to approach end of runway at—		Ceiling and visibility minimums			If visual contact not established upon descent to authorized landing minimums or if landing not accomplished
	From—	To—	Course and distance	Minimum altitudes (ft.)			Outer marker	Middle marker	Condition	Type aircraft: 75 m.p.h. or less	Type aircraft: More than 75 m. p. h.	
1	2	3	4	5	6	7	8	9	10	11	12	13
SALT LAKE CITY, UTAH. Salt Lake City No. 1, 4,222'. ILS-SLC. Procedure No. 1. Effective April 28, 1955. Amendment No. 9. Supersedes Amendment No. 8, dated April 2, 1955. Major changes: ILS moved to runway 34L resulting in minor changes to transitions and altitudes.	Intersection* of S course Salt Lake City ILS and bearing of 212° to Fair field LFR (glide slope interception).	ILS S course--	338—0.0	*12,000	E or W side o. S course: 158° outbound. 338° inbound. 6,100' within 5 miles of LOM. Beyond 5 miles not authorized, 80° reversal recommended for procedure turn.	6,100	6,028—6.6 Riverton FM 9,340—18.1	4,457—0.65	2 engines or less			Climb to cross W course SLC LFR not above 6,500', then climb to 8,000' on W course SLC LFR to Stansbury Intersection, then to 9,000' on course of 336° to Promontory Point Radiobeacon. Alternate missed approach: When directed by ATC cross W course SLC LFR or SLC VOR not above 6,500', then climb to 11,000' on W course SLC LFR or SLC VOR radial 248. *Start descent at glide slope interception. Glide slope must be operative for this transition. Caution: No approach lights. **Straight-in minimums no lower than 300–1 authorized with inoperative ILS components. ‡500–2 required for takeoff Runway 7. CAUTION: Terrain 11,253' mean sea level approximately 9 miles E of localizer course at Riverton FM.
									‡T-dn	300–1	300–1	
									C-dn	500–1	600–1	
									**S-dn			
									Runway 34L	300–¾	300–¾	
									A-dn	600–2	600–2	
									More than 2 engines			
									‡T-dn	----------	200–½	
									C-dn	----------	600–1½	
									**S-dn			
									Runway 34L	----------	300–¾	
									A-dn	----------	600–2	
	Salt Lake City LFR.	LOM----------	162—9.0	6,000								
	Salt Lake City VOR-----	LOM----------	158—10.5	6,000								

These procedures shall become effective on the dates indicated in Column 1 of the procedures.

(Sec. 205, 52 Stat. 984, as amended; 49 U. S. C. 425. Interpret or apply sec. 601, 52 Stat. 1007, as amended; 49 U. S. C. 551)

[SEAL]

F. B. LEE,
Administrator of Civil Aeronautics.

[F. R. Doc. 55-3578; Filed, May 6, 1955; 8:45 a. m.]

TITLE 21—FOOD AND DRUGS

Chapter I—Food and Drug Administration, Department of Health, Education, and Welfare

PART 146—GENERAL REGULATIONS FOR THE CERTIFICATION OF ANTIBIOTIC AND ANTIBIOTIC-CONTAINING DRUGS

PART 146a—CERTIFICATION OF PENICILLIN AND PENICILLIN-CONTAINING DRUGS

PART 146c—CERTIFICATION OF CHLORTETRACYCLINE (OR TETRACYCLINE) AND CHLORTETRACYCLINE- (OR TETRACYCLINE-) CONTAINING DRUGS

MISCELLANEOUS AMENDMENTS

By virtue of the authority vested in the Secretary of Health, Education, and Welfare by the provisions of the Federal Food, Drug, and Cosmetic Act (sec. 507, 59 Stat. 463, as amended by 61 Stat. 11, 63 Stat. 409, 67 Stat. 389; sec. 701, 52 Stat. 1055; 21 U. S. C. 357, 371) and delegated to the Commissioner of Food and Drugs by the Secretary (20 F R. 1996), the regulations for the certification of antibiotic and antibiotic-containing drugs (21 CFR, 1953 Supp., Parts 146, 146a, 146c; 19 F. R. 673, 1141, 2140, 4405, 7998; 20 F. R. 882) are amended as indicated below:

1. Section 146.26 (b) is amended by adding the following new subparagraph (25):

§ 146.26 *Animal feed containing penicillin.* * * *

(b) * * *

(25) (i) It is intended for use solely in the control of outbreaks of coccidiosis in poultry flocks and it contains in a quantity, by weight of feed, not less than 0.003 percent and not more than 0.006 percent of 2,4-diamino-5-) p-chlorophenyl)-6-ethylpyrimidine and not less than 0.01 percent and not more than 0.02 percent of sulfaquinoxaline, and there has been submitted to the Commissioner, in triplicate, the information referred to in § 146.7, as well as any additional information necessary to establish the safety and efficacy of the article and to guarantee its identity, strength, quality, and purity. The exemption shall expire at the beginning of any act changing the composition or labeling of such drug or the methods used in its manufacturing, processing, or repackaging, or the facilities and controls used for such manufacturing, processing, or repackaging, unless the person who obtains the exemption has submitted to the Commissioner, in triplicate, amended information describing such proposed changes and such amendment has been accepted by the Commissioner.

(ii) It is intended for use in the disease specified in subdivision (i) of this subparagraph, it contains the ingredients in the amounts and under the conditions specified in that subdivision, and it contains one, but only one, of the ingredients prescribed by paragraph (a) of this section and in the amounts specified in that paragraph.

2. In § 146a.85 *Benzathine-procaine-buffered crystalline penicillins for aqueous injection* paragraph (a) is amended by changing the number "300,000" to read "200,000".

3. In § 146c.204 *Chlortetracycline capsules* * * *, paragraph (c) (1) (iv) is changed to read as follows:

(iv) The statement "Expiration date ------," the blank being filled in with the date that is 48 months after the month during which the batch was certified if it is chlortetracycline hydrochloride, or with the date that is 36 months after the month during which

the batch was certified if it is tetracycline hydrochloride or tetracycline, or with the date that is 24 months after the month during which the batch was certified if it contains one or more vitamin substances: *Provided, however,* That such expiration date may be omitted from the immediate container if such immediate container is packaged in an individual wrapper or container.

Notice and public procedure are not necessary prerequisites to the promulgation of this order, and I so find, since it was drawn in collaboration with interested members of the affected industry, since it would be against public interest to delay providing for the amendments set forth above, and since it conditionally relaxes existing requirements.

I further find that animal feeds containing the antibiotic drugs and other ingredients specified in amendment 1, above, need not comply with the requirements of sections 502 (1) and 507 of the Federal Food, Drug, and Cosmetic Act in order to insure their safety and efficacy, provided that they are used in the amounts and for the condition specified in that amendment.

This order shall become effective upon publication in the FEDERAL REGISTER, since both the public and the affected industry will benefit by the earliest effective date, and I so find.

(Sec. 701, 52 Stat. 1055; 21 U. S. C. 371)

Dated: May 2, 1955.

[SEAL] GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F. R. Doc. 55-3717; Filed, May 6, 1955; 8:47 a. m.]

TITLE 29—LABOR

Chapter V—Wage and Hour Division, Department of Labor

PART 655—NEEDLEWORK AND FABRICATED TEXTILE PRODUCTS INDUSTRY IN PUERTO RICO

MINIMUM WAGE ORDER

Pursuant to the provisions of the Administrative Procedure Act (60 Stat. 237; 5 U. S. C. 1001), notice was published in the FEDERAL REGISTER on March 4, 1955 (20 F. R. 1345) of the Administrator's proposed decision to approve as to 15 divisions and to disapprove as to the remaining five divisions the recommendations of Special Industry Committee No. 15 for Puerto Rico for the Needlework and Fabricated Textile Products Industry in Puerto Rico, together with the amended wage order which he proposed to issue to carry such decision into effect.

As indicated in the notice, the Administrator's findings and conclusions in this matter were set forth in a document entitled "Findings and Opinion of the Administrator in the Matter of the Recommendations of Special Industry Committee No. 15 for Puerto Rico for Minimum Wage Rates in the Needlework and Fabricated Textile Products Industry in Puerto Rico."

The period of 30 days from March 4, 1955, within which exceptions to the proposed decision might be filed has now expired. Exceptions have been received from 13 different interested parties relative to the findings in many of the divisions in the Industry.

The only exception in the art linen and needlepoint division is one of a very general nature which was filed by Mrs. Gustavo Saliva, an employer. Her objection is based upon the pressure of foreign competition and the loss of business which has already occurred as a result of that competition. She urges that a further increase in the minimum wage, particularly for hand-sewing, will serve only to intensify this loss of business. The effect of foreign competition was one of the factors which was specifically considered and discussed in the Administrator's findings and opinion, so that it is clear that it was fully taken into account by him and given such weight, along with other factors, as seemed appropriate under the circumstances. No further comment seems needed at this time, since the weight to be given to specific evidence which he has considered is peculiarly a matter within the Administrator's discretion under the act.

There have been three exceptions filed which relate to the handerchief and square scarf division. One was the previously mentioned general exception of Mrs. Saliva which also extended to this division. The comments with reference to it which have already been made in connection with the preceding division are equally applicable here. A similar exception was filed by Villari Handkerchief Company and no further comment is required. The third exception was filed by the Handkerchief Industry Association, Inc. It is to substantially the same effect, although it contains some information in addition to that in the record to show the increasing impact of foreign competition. It does not, however, seem sufficiently conclusive to warrant any change in the conclusion reached by the Administrator.

There have also been three exceptions filed which relate to the fabric glove division. One is the same general objection from Mrs. Saliva which has already been sufficiently discussed. The other two are from the Amalgamated Clothing Workers of America and the International Ladies' Garment Workers' Union. Both unions object to the increase for hand-sewing and regard it as insufficient. Since it appears from the findings and opinion of the Administrator that this point was fully considered by him, no further comment seems essential at this time.

In the knit glove division an exception was filed by one employer, Corozal Knitting Mills, Inc. This exception opposes the failure to establish a separate classification for hand-sewing, as was done in other glove divisions, and urges that the rate which will consequently have to be paid for hand-sewing is excessive. This entire matter was discussed by the Administrator at some length in his findings and opinion for the express purpose of meeting these very objections. No additional comment seems required at this time.

An exception has been filed in the silk, rayon, and nylon underwear division by the International Ladies' Garment Workers' Union. It is urged that in spite of the steady decline in this division the increases recommended by the Committee would not result in any substantial curtailment of employment, and should any such curtailment occur it would be due entirely to factors other than the increase. The basic contention here is that the Administrator did not properly evaluate the various factors which he had to take into account rather than that he failed to consider any relevant factors. The findings and opinion indicate that the various factors stressed by the union in its exception were taken into account by the Administrator and evaluated by him. This evaluation caused him to conclude that no matter what effect other factors might have there was no substantial evidence in the record to support a conclusion that increases of the magnitude recommended would not at least contribute to a further curtailment of employment. The suggestion in the exception that firms operating in this division might be able to keep up employment by taking on other lines which fall in other divisions does not show that employment in this particular division would not be curtailed. Since the Administrator appears to have taken all of the relevant factors into account, no further comment appears to be required.

An exception by Baylis Brothers Company, an employer operating in both the infants' wear division and the children's and dolls' wear division, may be considered as a unit. The points which are raised relate, with a single possible exception, to the weight to be given certain specific evidence in the record. The findings and opinion indicate that these matters were considered by the Administrator along with many other factors in reaching what he regarded as a proper evaluation of them. The findings and opinion do not, however, specifically refer to the fact that the Puerto Rico Minimum Wage Board set lower minimum rates for operations which were not in interstate commerce. Since such rates are designed for activities of a purely local nature and are not established on the basis of the requirements of the Fair Labor Standards Act, the level at which such rates are established should not be given substantial weight in evaluating the propriety of rates which have been recommended on the basis of criteria specified in the Fair Labor Standards Act. This factor alone would not be sufficient to warrant any change in the Administrator's conclusions.

An exception has been filed in the sweater and bathing suit division by the National Knitted Outerwear Association. The exception relates primarily to the definition of this division. It is urged that the definition is too vague and improperly includes bathing suits, a product which admittedly is not currently being produced in Puerto Rico. It is apparent from the exception itself that the same arguments were previously made to and considered by the

Administrator. The findings and opinion refer specifically to the inclusion of bathing suits in the definition, and there is also a finding approving the various definitions after consideration of relevant economic and competitive factors. The exception points out certain difficulties which may arise in applying the definition. It is always possible, of course, that problems will arise in determining the applicability of any definition to a particular item, and each situation will have to be decided when it arises on its own facts. However, it should be noted that the definition is specifically confined to women's, misses' and girls' sweaters and bathing suits. With this delimitation, the products intended to be included seem sufficiently clear. The exception which has been filed presents nothing which has not already been considered by the Administrator.

In the millinery division an exception has been filed by the United Hatters, Cap and Millinery Workers International Union. It singles out the relationship between costs and wholesale selling prices to support its contention that the recommendations of the Committee should have been approved. This is but one of many factors taken into account by the Administrator in reaching his conclusion that there was not substantial evidence in the record as a whole to indicate that the recommended increase would be economically feasible at this time. The mere fact that specific portions of the evidence, when taken alone, might support a contrary conclusion, cannot serve as a substitute for the lack of substantial evidence in the record as a whole.

In the crochet beading, bullion embroidery, machine embroidered lace, insignia and chevron division an exception has been filed by Texco Textiles, an employer engaged in the production of machine embroidered lace. This company indicates that although it was unable to have representatives attend the hearings, its employment has steadily declined during the last 14 months. The recent experience of this single firm, engaged in only one of the numerous activities included in this division, does not indicate that there should be any change in the conclusions reached by the administrator after weighing all of the evidence in the record as to the division as a whole. In this connection, the embroideries and trimmings industry is characterized by relatively severe market fluctuations from season to season. These fluctuations, however, have no direct connection with wage rates.

In the corde and bonnaz embroidery and corde handbag division exceptions have been filed by the National Hand Embroidery and Novelty Manufacturers Association, Inc. and the International Ladies' Garment Workers' Union, AFL. The principal contention is that the evidence in the record regarding the competitive relation between the mainland and Puerto Rico was not properly evaluated.

I have studied carefully the exceptions presented. Upon reviewing all the evidence adduced in this proceeding, in the light of the contentions now advanced by the union and adopted by the National Hand Embroidery and Novelty Manufacturers' Association, Inc., I have concluded that the Committee's recommendation of a minimum wage rate of 51 cents an hour for this division is supported by substantial evidence and would carry out the purposes of the act. I have set forth the basis for my approval of this recommendation in greater detail than would be appropriate here in a document entitled "Supplement to Findings and Opinion of the Administrator in the Matter of the Recommendation of Special Industry Committee No. 15 for Puerto Rico for Minimum Wage Rates in the Needlework and Fabricated Textile Products Industry in Puerto Rico," a copy of which may be had upon request to the Wage and Hour Division, United States Department of Labor, Washington 25, D. C. A new notice of proposed decision as to this Division is being published in the FEDERAL REGISTER simultaneously with this wage order.

In the handbag (except corde) division an exception was filed by the International Handbag, Luggage, Belt and Novelty Workers Union, AFL. The principal contention is that the competitive advantage which Puerto Rico possesses over the mainland is alone sufficient to justify approval of the Committee's recommendation. The findings and opinion specifically recognize that Puerto Rican producers have an advantage over mainland producers with respect to labor costs and point out that an increase in the minimum appears warranted. When all of the evidence in the record was weighed by the Administrator, however, including other factors which he was also required to take into account, he was unable to find substantial evidence in the record as a whole to support a conclusion that the specific increase recommended would have been economically feasible at the time of the hearing without substantial curtailment of employment. His only alternative was to disapprove the recommended increase, which he did. The stress which this exception places upon one of the factors which the Administrator specifically took into account cannot make up for the lack of evidence in the record as a whole.

For the general division, an exception has been filed by the International Ladies' Garment Workers' Union. Here, too, the Union contended that Puerto Rico had a competitive advantage over the mainland that would justify approval of the recommended increase. The Administrator took this factor into account when he recognized in the findings and opinion that the evidence indicated that an increase in the minimum wage was warranted. He concluded, however, that the evidence as a whole was not substantial enough to support the conclusion that the minimum wage rate recommended by the Committee should be approved at this time for this entire division, since such a rate would apply to the production of a variety of articles.

The Puerto Rico Needlework Association, Inc., submitted exceptions directed toward the entire proposed decision. The Association urges that the employee members of the Committee did not actually represent employees in the industry, and consequently, the actions of the Committee were not made in accordance with the requirements of the act. This matter was raised previously and has been fully considered and discussed in the findings and opinion. In addition the Association expresses concern about the adequacy of certain division definitions. The recommended definitions have been fully considered and no further discussion seems warranted at this time.

The Association also urges that undue emphasis has been given to competitive relationships between Puerto Rico and the northeastern section of the United States mainland. Actually, competitive considerations have been related to whatever states or regions produce any of the particular goods in question in competition with Puerto Rico. Mainland production of many needlework products is concentrated heavily, if not exclusively, in the northeastern states, whereas certain other products, such as dungarees, are manufactured primarily in the South.

The Association has also requested that the effective date for any new wage order for the needlework and fabricated textile products industry be postponed until July 15 so that it will not take effect in the middle of a season. While I agree that a new order should not be made applicable to style lines which have already been priced for a season, analysis of shipment statistics reveals that May and June are normally the lowest months of the year. It appears from the record that production for the spring season is completed around the middle of April and that fall production begins around the first of July. Since production of goods for summer sales are minor and show no particular pattern, it seems reasonable that an effective date of June 6 will not cause any undue inconvenience to the industry. The present order for this industry was made effective on June 4, 1951 and there was no indication that this date fell in the middle of a season or unreasonably affected operations.

I have reviewed the exceptions which have been filed in the light of the entire record in this matter and I have concluded that the only modification which is warranted is in the corde and bonnaz embroidery and corde handbag division, in which the recommendation of the Committee should be approved as previously indicated. Pending the issuance of a new wage order for that division, the following amended wage order will issue in accordance with the notice of proposed decision which was published in the FEDERAL REGISTER on March 4, 1955 (20 F. R. 1345), and under the authority in section 8 of the Fair Labor Standards Act of 1938 (29 U. S. C. 201 et seq.), Reorganization Plan No. 6 of 1950 (5 U. S. C. 611), General Order No. 45–A (15 F. R. 3290), and, the position of the Administrator being presently vacant, General Order No. 85 (20 F. R. 2066). Formal changes in § 655.4 (a) (1) have been made in the order as it appeared in that notice by reason of the fact that there is now a separate wage order for the corsets, brassieres and allied garment industry and that the hairnet industry has

been included under the wage order for the textile and textile products industry.

Sec.
655.1 Approval of recommendations of industry committee.
655.2 Wage rates.
655.3 Notice of order.
655.4 Definitions of the needlework and fabricated textile products industry in Puerto Rico and its divisions.

AUTHORITY: §§ 655.1 to 655.4 issued under sec. 8, 63 Stat. 915; 29 U. S. C. 208. Interpret or apply sec. 5, 63 Stat. 911; 29 U. S. C. 205.

§ 655.1 *Approval of recommendations to Industry Committee.* The Committee's recommendations are hereby approved, except as hereinafter noted.

§ 655.2 *Wage rates.* (a) (1) Wages at a rate of not less than 22½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the art linen and needlepoint division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, embroidering and embellishing by hand and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the art linen and needlepoint division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, stamping, sorting, finishing, and packing, and who is engaged in commerce or in the production of goods for commerce.

(b) (1) Wages at a rate of not less than 22½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the handkerchief and square scarf division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the handkerchief and square scarf division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, machine operating, stamping, sorting, ribboning, washing, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

(c) (1) Wages at a rate of not less than 22½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the fabric glove division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 57½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the fabric glove division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in machine operating or in operations known to the industry as cutting, laying off, sizing, banding, and boxing, and who is engaged in commerce or in the production of goods for commerce.

(3) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the fabric glove division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in operations other than hand sewing, machine operating, and operations known to the industry as cutting, laying off, sizing, banding, and boxing, and who is engaged in commerce or in the production of goods for commerce.

(d) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the knit glove division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

(e) (1) Wages at a rate of not less than 30 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the leather glove division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 57½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the leather glove division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in machine operating, or in any operations known to the industry as cutting, laying off, sizing, banding and boxing, and who is engaged in commerce or in the production of goods for commerce.

(3) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the leather glove division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in operations other than hand sewing, machine operating, and operations known to the industry as cutting, laying off, sizing, banding, and boxing, and who is engaged in commerce or in the production of goods for commerce.

(f) (1) Wages at a rate of not less than 21 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the silk, rayon, and nylon underwear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 34 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the silk, rayon, and nylon underwear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, machine operating, stamping, sorting, cleaning, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

N. B.: Special Industry Committee No. 15 for Puerto Rico recommended minimum wage rates of 26 cents and 45 cents respectively for activities in this division. These recommendations are hereby disapproved and the foregoing rates will remain in effect until a new wage order is issued to replace them.

(g) (1) Wages at a rate of not less than 22½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the cotton underwear and infants' underwear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the cotton underwear and infants' underwear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, stamping, machine operating, sorting, washing, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

(h) (1) Wages at a rate of not less than 25 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the infants' wear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing,

hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the infants' wear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, machine operating, stamping, sorting, pinning, washing, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

(i) (1) Wages at a rate of not less than 35 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the children's and dolls' wear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 40 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the children's and dolls' wear division of the neddlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, machine operating, stamping, sorting, cleaning, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

(j) (1) Wages at a rate of not less than 35 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the blouse, dress, and neckwear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 45 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the blcuse, dress, and neckwear division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, machine operating, stamping, sorting, cleaning, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

(k) Wages at a rate of not less than 47½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the dungarees, slacks and related products division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

(l) Wages at a rate of not less than 50 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the sweater and bathing suit division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

(m) Wages at a rate of not less than 57½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the hat body division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

(n) Wages at a rate of not less than 36 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the corde and bonnaz embroidery and corde handbag division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

N. B.: Special Industry Committee No. 15 recommended a minimum wage rate of 51 cents an hour for activities in this division. That recommendation was disapproved in the notice of proposed decision of March 4, 1955, but is being approved in the notice of proposed decision for that division in this issue of the FEDERAL REGISTER. The foregoing rate of 36 cents an hour will continue in effect until a new wage order is issued for this Division.

(o) Wages at a rate of not less than 45 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the crochet slipper division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

(p) Wages at a rate of not less than 47½ cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the crochet beading, bullion embroidery, machine embroidered lace, insignia, and chevron division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in commerce or in the production of goods for commerce.

(q) (1) Wages at a rate of not less than 35 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the crocheted hats and infants' bootee division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 45 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the crocheted hats and infants' bootee division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations, including, but not by way of limitation, cutting, machine operating, stamping, sorting, cleaning, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

(r) (1) Wages at a rate of not less than 21 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the miscellaneous division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in hand sewing operations, including, but not by way of limitation, hand drawing, hand rolling, and embroidering and embellishing by hand, and who is engaged in commerce or in the production of goods for commerce.

(2) Wages at a rate of not less than 30 cents an hour shall be paid under section 6 of the Fair Labor Standards Act of 1938, as amended, by every employer to each of his employees in the miscellaneous division of the needlework and fabricated textile products industry in Puerto Rico who is engaged in other operations including, but not by way of limitation, cutting, machine operating, stamping, sorting, cleaning, finishing, pressing, examining, and packing, and who is engaged in commerce or in the production of goods for commerce.

N. B.: Special Industry Committee No. 15 for Puerto Rico recommended a minimum wage of 50 cents an hour for the millinery division, 45 cents an hour for the handbag (except corde) division, and 45 cents an hour for the general division. It defined the millinery division as "the manufacture of all headwear, except knitted or crocheted headwear, for women, misses, girls, and infants three years of age or under, from any material, but not including the manufacture of hat bodies," the handbag (except corde) division as "the manufacture of handbags and purses (except corde) for women, misses, and girls," and the general division as "all products and activities in the needlework and fabricated textile products industry, as defined in Administrative Order No. 433, which are not included in any of the other divisions of the industry as defined therein." The activities in those three divisions, as thus defined, are at present included in the above miscellaneous division. The recommendations of the Committee for those three divisions are hereby disapproved. The activities included in the definitions for those divisions will accordingly remain subject to the applicable minimum wage rates provided for the above miscellaneous division until a new wage order is issued covering such activities.

§ 655.3 *Notices of order.* Every employer employing any employees so engaged in commerce or in the production of goods for commerce in the needlework and fabricated textile products industry in Puerto Rico shall post and keep posted in a conspicuous place in each depart-

ment of his establishment where such employees are working such notices of this order as shall be prescribed, from time to time, by the Wage and Hour Division of the United States Department of Labor and shall give such other notice as the Division may prescribe.

§ 655.4 *Definition of the needlework and fabricated textile products industry in Puerto Rico and its divisions.* (a) (1) The manufacture from any material of all apparel and apparel furnishings and accessories made by the knitting, crocheting, cutting, sewing, embroidering, or other processes; the manufacture of all textile products and the manufacture of like articles in which a synthetic material in sheet form is the basic component: *Provided, however,* That the definition shall not cover products or activities included in the following industries in Puerto Rico as defined in the wage order for such industries: The artificial flower industry, the button, buckle, and jewelry industry, the corsets, brassieres and allied garments industry, the handicraft products industry, the hosiery industry, the hooked rug industry, the men's and boys' clothing and related products industry, the shoe manufacturing and allied industries, and the textile and textile products industry. This definition includes, but without limitation, handkerchiefs, scarves and muffiers; gloves; women's, misses', girls' and infants' outerwear, underwear, and nightwear; handbags (except handbags made by hand out of raffis, maguey, straw or similar materials); household art linens; needlepoint; embroideries and trimmings; curtains, draperies, and bedspreads; and miscellaneous fabricated textile products.

(2) This definition supersedes the definitions contained in any and all wage orders heretofore issued for other industries in Puerto Rico to the extent that such definitions include products or operations covered by the definition of this industry.

(b) The separable divisions of the industry, as defined in paragraph (a) of this section, to which this part and its several provisions shall apply, are hereby defined as follows:

(1) *Art linen and needlepoint division.* The manufacture of household art linens including, but not by way of limitation, table cloths, napkins, bridge sets, luncheon cloths, table covers, sheets, pillow cases, and towels, and the manufacture of needlepoint on canvas or other material.

(2) *Handkerchief and square scarf division.* The manufacture of plain, scalloped or ornamented handkerchiefs and square scarves.

(3) *Fabric glove division.* The manufacture of gloves and mittens from woven or knitted fabrics.

(4) *Knit glove division.* The manufacture of knit or crocheted gloves and mittens.

(5) *Leather glove division.* The manufacture of gloves and mittens from leather or from leather in combination with other material.

(6) *Silk, rayon, and nylon underwear division.* The manufacture, from any fabric except cotton, or from any fabric containing a mixture of cotton and other fibers, of women's, misses', and girls' underwear and nightwear, including, but not by way of limitation, slips, nightgowns, negligees, panties, step-ins, pajamas, and similar articles.

N. B.: See note in connection with this division in § 655.2 (f).

(7) *Cotton underwear and infants' underwear division.* The manufacture from cotton fabric of women's, misses', and girls' underwear including, but not by way of limitation, slips, nightgowns, negligees, panties, step-ins, pajamas, and similar articles, and the manufacture of underwear and nightwear for infants three years of age or under.

(8) *Infants' wear division.* The manufacture of dresses, rompers, creepers, sportswear, and play apparel for infants three years of age or under.

(9) *Children's and dolls' wear division.* The manufacture of dresses, blouses, shirts, and similar articles for girls over three years of age and the manufacture of clothing for dolls.

(10) *Blouse, dress, and neckwear division.* The manufacture of women's and misses' blouses, shirts, waists, dresses, smocks, aprons, neckwear (including collar and cuff sets) and scarves (except square scarves).

(11) *Dungarees, slacks, and related products division.* The manufacture of dungarees, slacks, pedal pushers, culottes, shorts and similar apparel for women, misses and girls.

(12) *Sweater and bathing suit division.* The manufacture of women's, misses', and girls' sweaters and bathing suits.

(13) *Corde and bonnaz embroidery and corde handbag division.* The manufacture of corde handbags, corde plates for handbags, and other articles or trimmings made on a bonnaz embroidery machine.

N. B.: See note in connection with this division in § 655.2 (n).

(14) *Hat body division.* The processing of hatters' fur and the manufacture of all types of hat bodies for women's, misses', girls' and infants' hats.

(15) *Crocheted hat and infants' bootee division.* The manufacture of crocheted or knitted headwear for women, misses, girls, and infants three years of age or under and the manufacture of crocheted or knitted bootees for infants.

(16) *Crocheted slipper division.* The manufacture of slippers, slipper socks, mukluks, and similar types of footwear (except infants' bootees) made by a crocheting or knitting process.

(17) *Crochet beading, bullion embroidery, machine embroidered lace, insignia and chevron division.* The manufacture of emblems, insignia, and chevrons; and the outlining or embroidery of lace by machine and the embroidery of any article by a crochet beading process or with bullion threads and all operations immediately incidental to such outlining or embroidery.

(18) *Miscellaneous division.* All products and activities included in the needlework and fabricated textile products industry, as defined in paragraph (a) of this section, which are not included in any of the other divisions of the industry as defined in this section.

N. B.: See note in connection with this division in § 655.2 (r).

The wage order above shall become effective June 6, 1955.

Signed at Washington, D. C., this 5th day of May 1955.

STUART ROTHMAN,
Solicitor.

[F. R. Doc. 55-3750; Filed, May 6, 1955; 8:50 a. m.]

TITLE 45—PUBLIC WELFARE

Subtitle A—Department of Health, Education, and Welfare, General Administration

PART 20—VENDING STANDS FOR THE BLIND ON FEDERAL PROPERTY IN THE CUSTODY OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Part 20 is added to 45 CFR Subtitle A pursuant to section 4 (a) of Public Law 565, 83d Congress, (68 Stat. 663) which imposes upon each head of a department or agency in control of the maintenance, operation, and protection of Federal property a duty to prescribe regulations with the approval of the President to carry out the statutory policy of providing blind persons with the opportunity to operate vending stands on Federal property.

Part 20 reads as follows:

Sec.
20.0 Scope.
20.1 General.
20.2 Department policy on permits for vending stands.
20.3 Provisions of the permit.
20.4 Report on noncompliance with provisions of permit or on other matters.
20.5 Referral of disagreements on provisions of permit.
20.6 Termination of other existing arrangements for vending stands.
20.7 Constituents to maintain procedures for assuring preference.
20.8 Definitions.

AUTHORITY: § 20.0 to 20.8 issued under sec. 4, 68 Stat. 663; 20 U. S. C. 107.

§ 20.0 *Scope.* This part applies to all Federal property of which this Department is in control of the maintenance, operation, and protection.

§ 20.1 *General.* Congress has directed that blind persons licensed by State agencies under the provisions of the Randolph-Sheppard Vending Stand Act, be authorized, and, so far as feasible, be given preference to operate vending stands on any Federal property where such vending stands may be properly and satisfactorily operated by blind persons. Section 4 (a), Public Law 565, 68 Stat. 663, (20 U. S. C. 107). That law further directs the head of each department or agency in control of the maintenance, operation, and protection of Federal property to prescribe regulations, with the approval of the President, to assure that preference including assignment of vending machine income to achieve and protect that preference.

§ 20.2 *Department policy on permits for vending stands.* (a) Pursuant to these responsibilities and subject to paragraph (b) of this section, it will be the policy of this Department with respect to property of which it is in control of the maintenance, operation, and protection, to issue a permit authorizing the operation of such vending stands (which term includes vending machines) without charge for space or necessary utilities as, in the opinion of the State licensing agency, are suitable for operation by a licensed blind person and for which the State licensing agency makes application.

(b) The application of a State licensing agency for a permit may be denied or revoked if the Secretary determines that the interest of the United States would be adversely affected or this Department unduly inconvenienced by its issuance or continuance. Loss of revenue by reason of granting a rent-free permit for operation of a vending stand by a licensed blind person shall not be a basis for denying such permit as unduly inconveniencing this Department or adversely affecting the interest of the United States. If a constituent believes factors other than loss of revenue justify denial or revocation of a permit for the operation of a vending stand by a licensed blind person, it shall refer the matter to the Secretary, together with the recommendation of the Director of the Office of Vocational Rehabilitation.

(c) No permit, lease, or other arrangement for the operation of a vending stand (which term includes vending machines) on property, the maintenance, operation, and protection of which is in a constituent, shall be entered into or renewed without first consulting the State licensing agency, unless express permission is given therefor by the head of the constituent after consultation with the Director of the Office of Vocational Rehabilitation.

(d) After a permit to operate a vending stand is in effect, no article shall be offered for sale on the property (through over the counter sales, by vending machine, or otherwise) which competes with articles approved for sale under the permit, except that this regulation shall not prevent a cafeteria or restaurant from selling articles of a type considered as food and usually sold as part of a meal, nor shall it prevent the sale of articles by vending machines. However, the income from any vending machines which are located within reasonable proximity to and are in direct competition with a vending stand for which a permit has been issued shall be assigned to the operator of such stand. If a vending machine vends articles of a type authorized by the permit and is so located that it attracts customers who would otherwise patronize the vending stand, such machine is in reasonable proximity to and direct competition with the stand.

(e) In the exercise of any function of this Department in connection with planning for the construction, alteration, or remodeling of buildings which are, or will become, Federal property (including those to be leased or otherwise acquired under Public Law 519, 83d Congress, 68 Stat. 518), provision shall be made for suitable space for a vending stand or stands, if the operation of one on such property will be feasible. This shall include the facilities which will be necessary to the operation of such a stand, such as adequate electrical wiring and outlets, heating, plumbing, and ventilation. The constituent will consult with the State licensing agency in carrying out this subsection.

§ 20.3 *Provisions of the permit.* (a) The permit will be conditioned upon the vending stand meeting specified standards, including standards relating to appearance, safety, sanitation, and efficiency of operation. Due regard shall be given to provisions of laws and regulations for the public welfare which are applicable, or would be applicable, if the property involved were not under the jurisdiction of the Federal Government.

(b) The permit will specify the types of articles which may be sold. The types of articles specified in section 4 (b) (4) of the act (newspapers, periodicals, confections, tobacco products, articles dispensed automatically or in containers or wrapping in which they are placed before receipt by the vending stand) and such related articles as the State licensing agency asks to be included, will be permited to be sold, unless such factors as the inadequacy of the facilities which are or can reasonably be made available, or safety, health, or legal requirements demand otherwise. Due regard shall be given to provisions of laws and regulations for the public welfare which are applicable, or would be applicable, if the property involved were not under the jurisdiction of the Federal Government. The permit shall also contain adequate provisions to prevent material defacement or damage to property, including a provision that when alterations are to be made by other than the United States, they will be made with the approval of and under the supervision of the appropriate official of the Federal Government. The permit may contain other reasonable conditions necessary for the protection of the Government and the prospective patrons of the vending stand. However, no condition shall be imposed which would require a vending stand to provide a service not usually associated with such stands.

(c) The permit shall describe the location of the vending stand proper and the locations of the vending machines to be operated on the property. Where feasible, each vending stand will be located in a room, affording easy access to potential patrons.

§ 20.4 *Report on noncompliance with provisions of permit or on other matters.* The permit together with the applicable rules, regulations, and policies of the State licensing agency shall govern the operation of a vending stand, and all officials and employees of this Department shall encourage conduct and operation in accordance with such permit, rules, regulations, and policies. The constituent shall cooperate with the State licensing agency with respect to the foregoing and report to it any significant violations or other relevant matters which come to its attention. If a constituent believes that the State licensing agency is not taking proper action in such matters, it shall inform the Director of the Office of Vocational Rehabilitation.

§ 20.5 *Referral of disagreements on provisions of permit.* If the individual representing the constituent and responsible for granting the permit is unable to agree with the State licensing agency upon a suitable location, whether a vending machine is in competition with a vending stand or upon other terms of the permit (including the articles which may be sold), the matter shall be referred to the head of the constituent who, after consultation with the Director of the Office of Vocational Rehabilitation, shall determine the action to be taken. This provision shall be equally applicable whether the disagreement relates to terms and conditions of a new permit or of an amendment thereof.

§ 20.6 *Termination of other existing arrangements for vending stands.* (a) When a permit is issued to a State licensing agency for operation of a vending stand on any property location, steps shall be taken to terminate any existing arrangement for the sale of articles by other than a licensed blind person which are not permitted to be sold under § 20.2 (d). In terminating a permit, contract, or other arrangement with other than a State licensing agency, notice shall be given as required under the terms of the arrangement, or if none is provided, a reasonable notice of termination may be given in the discretion of the constituent.

(b) In the application of this section, this Department will cooperate with the non-licensed vendor and the licensing agency to prevent interruption of vending stand service, or where interruption is necessary in preparing for the vending stand for which a permit is issued, to keep such interruption to a minimum.

§ 20.7 *Constituents to maintain procedures for assuring preference.* (a) The head of each constituent of this Department in control of the maintenance, operation, and protection of any Federal property shall maintain the procedures to insure compliance with the regulations of this part.

(b) A constituent shall designate a representative for each property location under its control to cooperate with the State licensing agency.

(c) The State licensing agency of the State in which the property is located shall be notified in writing of the name of such representative.

(d) The representative will make such joint surveys with the State licensing agency as it may request to ascertain whether, and if so, in what locations, vending stands may be properly, profitably, and satisfactorily operated by blind persons.

(e) Such alterations or repairs as are reasonable and feasible in order to accommodate the vending stand will be made.

§ 20.8 *Definitions.* As used in this part, the following terms shall have the meaning indicated:

(a) "Act" means the Randolph-Sheppard Vending Stand Act (Public Law 732, 74th Congress, 49 Stat. 1559, as amended by Public Law 565, 83d Congress, 68 Stat. 663; 20 U. S. C. 107, chapter 6A).

(b) "Secretary" means the Secretary of Health, Education, and Welfare.

(c) "Constituent" means the Public Health Service, Social Security Administration, Food and Drug Administration, Office of Education, Office of Vocational Rehabilitation, Saint Elizabeths Hospital and such comparable administrative units as may hereafter be formed. Where this Department is in control of the maintenance, operation, and protection of Federal property, but such property is not operated by a constituent as defined above, the Director of the Division of Administration of this Department shall exercise the authority and responsibility of a constituent under this part with respect to such property.

(d) "Federal property" means any building, land, or other real property owned, leased, or occupied by any department or agency of the United States or any instrumentality wholly owned by the United States, or by any department or agency of the District of Columbia or any Territory or possession of the United States.

(e) "Property" or "property location," unless the context indicates otherwise, means any real property location of which this Department, or a constituent thereof is in control of the maintenance, operation, and protection.

(f) "Permit," unless the context indicates otherwise, means the official authorization given by a constituent on behalf of the United States Government to carry out the statutory policy described in this part, whereby the State licensing agency is authorized to place a licensed blind person (or persons) to operate a vending stand (or stands).

(g) "Denial of a permit" shall include the termination of a permit or the refusal to renew a permit.

(h) "Vending stand," unless the context indicates otherwise, means:

(1) Such shelters, counters, shelving, display and wall cases, refrigerating apparatus, and other appropriate auxiliary equipment as are necessary for the vending of such articles as may be approved by the State licensing agency and the constituent.

(2) Manual or coin-operated vending machines or similar devices for vending such articles.

(i) "State licensing agency" means the State agency designated by the Director of the Office of Vocational Rehabilitation pursuant to the act to issue licenses to blind persons for the operation of vending stands on Federal and other properties.

(j) "Licensed blind person" means a blind person licensed to operate a vending stand on Federal or other property by a State licensing agency.

[SEAL] OVETA CULP HOBBY,
Secretary.

Approved: May 3, 1955.

PERCIVAL F. BRUNDAGE,
Acting Director,
Bureau of the Budget.

[F. R. Doc. 55-3701; Filed, May 6, 1955; 8:45 a. m.]

PROPOSED RULE MAKING

DEPARTMENT OF THE TREASURY

Internal Revenue Service

[27 CFR Part 7]

ALCOHOL AND TOBACCO TAX DIVISION

LABELING AND ADVERTISING OF MALT BEVERAGES; NOTICE OF HEARING

Notice is hereby given, pursuant to the provisions of section 5 of the Federal Alcohol Administration Act (49 Stat. 981 as amended; 27 U. S. C. 205), of a public hearing to be held on June 1, 1955, at 10 a. m., at Room 5615, Internal Revenue Building, Washington, D. C., at which time and place all interested parties will be afforded opportunity to be heard, in person or by authorized representative, with reference to the proposals, the substance of which is stated below, to amend Regulations No. 7 (27 CFR Part 7), relating to labeling and advertising of malt beverages.

Written data, views or arguments relevant and material to these proposals may be submitted in duplicate for incorporation into the record of hearing (1) by mailing the same to the Director, Alcohol and Tobacco Tax Division, Internal Revenue Service, Washington 25, D. C., provided that they are received prior to the termination of the hearing, or (2) by presenting the same at the said hearing. At the conclusion of the hearing a reasonable opportunity will be afforded interested parties for examination of the record and for the submission of briefs.

1. To amend § 7.27 (article II, section 27) and other pertinent sections of regulations to:

a. Provide that (subject to the limitations on Federal jurisdiction of section 5 of the Federal Alcohol Administration Act) no malt beverages bottled or packed in the United States (other than malt beverages packed in casks, barrels, or kegs of a capacity of 3 gallons or more) shall be bottled, or packed other than in standard malt beverage containers of sizes to be specified, such as the following:

7 ounce.
12 ounce.
1 quart.
11 ounce (for a specified limited period only).
1 pint.
½ gallon.

b. Provide that (subject to the limitations on Federal jurisdiction of section 5 of the Federal Alcohol Administration Act) no standard malt beverage container shall be filled so as to have a headspace in excess of 6 percent of its capacity after closure, or be so designed as to be deceptive as to its capacity.

2. To amend § 7.31 (article III, section 31) to eliminate the present requirement that Form 1652 "Affidavit for Release of Distilled Spirits, Wine, or Malt Beverages Under the Federal Alcohol Administration Act" must be deposited with the appropriate Customs officer at the Port of Entry before imported malt beverages may be released from Customs custody.

[SEAL] DWIGHT E. AVIS,
Director, Alcohol and Tobacco Tax Division, Internal Revenue Service.

[F. R. Doc. 55-3757; Filed, May 6, 1955; 8:51 a. m.]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Food and Drug Administration

[21 CFR Part 145]

[Docket No. FDC-30 (a)]

CHEMICAL DERIVATIVES OF SUBSTANCES DESIGNATED AS HABIT-FORMING

NOTICE OF HEARING

In the matter of amending the regulations designating certain chemical derivatives of substances named in section 502 (d) of the Federal Food, Drug, and Cosmetic Act as habit forming by removing acetylcarbromal and bromural from the list of habit-forming chemical derivatives of carbromal:

Pursuant to authority vested in the Secretary of Health, Education, and Welfare by the provisions of the Federal Food, Drug, and Cosmetic Act, and delegated to the Commissioner of Food and Drugs by the Secretary (20 F. R. 1996), notice is hereby given that upon application of a substantial portion of the interested industry, stating reasonable grounds therefor, and in accordance with sections 502 (d) as amended, and 701 of the Federal Food, Drug, and Cosmetic Act (52 Stat. 1050; 53 Stat. 854; 52 Stat. 1055; 21 U. S. C. 352 (d), 701), a public hearing will be held commencing at 10:00 a. m., eastern daylight time, on June 7, 1955, in room G-751, Health, Education, and Welfare Building, 330 Independence Avenue SW., Washington, D. C., for the purpose of receiving evidence upon applicant's proposal to remove acetylcarbromal and bromural from the list of habit-forming

chemical derivatives of carbromal (21 CFR 145.1).

At the hearing evidence will be restricted to testimony and exhibits relevant and material to such proposal. The hearing will be conducted in accordance with the rules of practice provided therefor. Mr. Leonard D. Hardy is hereby designated as presiding officer to conduct the hearing in place of the Secretary, with full authority to administer oaths and affirmations and to do all other things appropriate to the conduct of the hearing. The presiding officer is required to certify the entire record of the proceedings to the Commissioner for initial decision.

The proposed amendment is subject to adoption, rejection, or modification as the evidence adduced at the hearing may require.

Dated: May 3, 1955.

[SEAL] GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F. R. Doc. 55-3729; Filed, May 6, 1955; 8:49 a. m.]

CIVIL AERONAUTICS BOARD

[14 CFR Parts 6, 7]

[Draft Release No. 55-11]

ROTORCRAFT AIRWORTHINESS; TRANSPORT CATEGORIES AND SIMPLIFICATION OF REQUIREMENTS FOR SMALL ROTORCRAFT

NOTICE OF PROPOSED RULE MAKING

Pursuant to authority delegated by the Civil Aeronautics Board to the Bureau of Safety Regulation, notice is hereby given that the Bureau will propose to the Board the adoption of a new Part 7 and amendments to Part 6 of the Civil Air Regulations as hereinafter set forth.

Interested persons may participate in the making of the proposed rules by submitting such written data, views, or arguments as they may desire. Communications should be submitted in duplicate to the Civil Aeronautics Board, attention Bureau of Safety Regulation, Washington 25, D. C. In order to insure their consideration by the Board before taking further action on the proposed rules, communications must be received by June 15, 1955. Copies of such communications will be available after June 20, 1955, for examination by interested persons at the Docket Section of the Board, Room 5412, Department of Commerce Building, Washington, D. C.

The presently effective airworthiness requirements for rotorcraft are contained in Part 6 of the Civil Air Regulations. No distinction is made in the present requirements between large and small rotorcraft or between rotorcraft intended for general and air carrier service. The requirements of Part 6 have been based mainly upon experience with rotorcraft of relatively small size and consequently they would not be suitable for larger rotorcraft such as those which have been under study and development by manufacturers more recently. During the past few years studies have been conducted toward the establishment of airworthiness requirements for rotorcraft which not only would be larger in size but which also would be intended for use in air carrier service. These studies have resulted in the following proposal for the categorization of rotorcraft and the corresponding airworthiness requirements.

It is proposed to establish three categories of rotorcraft, namely, "Normal Category" for relatively small rotorcraft and "Transport Categories A and B" applicable to large rotorcraft intended for air carrier service. Rotorcraft certificated in the "Normal Category" would be eligible for all passenger and cargo operations, for hire, except in certificated scheduled and irregular air carrier service. However, such helicopters would be eligible for operations only under HVR (helicopter visual rules). Furthermore, certification in the "Normal Category" would be limited to rotorcraft of 6,000 pounds or less maximum weight.

"Transport Category A" helicopters would be eligible for all types of operations including air carrier service under both HVR and HIR (helicopter instrument rules). No limitation on maximum weight would be established for such rotorcraft. "Transport Category A" rotorcraft would be subject to compliance with appropriate perfomance operating limitations when used in air carrier service. In addition, they would be required to be multiengined. "Transport Category B" helicopters would be eligible for air carrier and other operations only under HVR conditions. However, when used in air carrier service they would be subject to compliance with performance operating limitations and with certain route limitations. Only rotorcraft of 17,500 pounds or less maximum weight would be eligible for certification in "Transport Category B".

In establishing requirements for the aforementioned three rotorcraft categories it is proposed to amend presently effective Part 6 of the Civil Air Regulations by making it applicable only to "Normal Category" rotorcraft. In so doing it is proposed to simplify some of the provisions of Part 6. The most significant of these would be the limitation of the requirement for scheduling performance and the necessity of providing a flight manual for helicopters.

In establishing the two transport categories it is proposed to promulgate a new Part 7 of the Civil Air Regulations applicable to both the "A" and "B" categories. The provisions for "Transport Category B" are intended to be essentially similar to those now contained in the presently effective Part 6 although a few new requirements are being proposed. With respect to the requirements for "Transport Category A", a number of provisions are being proposed particularly with regard to one-engine-inoperative performance, fire prevention, engine installation, structural, and detail design requirements.

Accordingly, notice is hereby given that it is proposed to amend Part 6 and to adopt a new Part 7 of the Civil Air Regulations as set forth in the proposals which are attached hereto.

These regulations are proposed under the authority of Title VI of the Civil Aeronautics Act of 1938, as amended. The proposal may be changed in the light of comments received in response to this notice of proposed rule making.

(Sec. 205, 52 Stat. 984; 49 U. S. C. 425. Interpret or apply secs 601-610, 52 Stat. 1007-1012, as amended 49 U. S. C. 551-560)

Dated at Washington, D. C., April 25, 1955.

By the Bureau of Safety Regulation.

[SEAL] JOHN M. CHAMBERLAIN,
Director.

Part 6 is proposed to be amended as follows:

1. By amending title of Part 6 to read "Rotorcraft Airworthiness — Normal Category".

2. By amending § 6.0 to read as follows:

§ 6.0 *Applicability of this part.* This part contains standards with which compliance shall be demonstrated for the issuance of and changes to type certificates for rotorcraft. This part, until superseded or rescinded, shall apply to rotorcraft of any weight for which applications for type certification under this part were made between the effective date of this part (January 15, 1951) and . For applications for type certificates made after this part shall apply only to rotorcraft which have a maximum weight of 6,000 pounds or less.

3. By amending § 6.111 to read as follows:

§ 6.111 *Take-off.* The take-off shall be demonstrated in a manner such that a landing can be made safely at any point along the flight path in case of an engine failure and shall not require an exceptional degree of skill on the part of the pilot or exceptionally favorable conditions. Pertinent information concerning the take-off procedure including appropriate climb-out air speeds shall be specified in the operating procedures section of the Rotorcraft Flight Manual (see § 6.742).

4. By amending § 6.112 (a) by adding the words "except helicopters" between the words "rotorcraft" and "the" in the first sentence and deleting the phrase "for all rotorcraft except helicopters" from the second sentence.

5. By amending § 6.112 (b) to read as follows:

§ 6.112 *Climb.* * * *

(b) For helicopters the best rate of climb speed shall be determined at sea level at maximum certificated weight with all engines operating at maximum continuous power.

6. By amending § 6.112 by adding a new paragraph (c) to read as follows:

§ 6.112 *Climb.* * * *

(c) For multiengine helicopters the steady rate of climb or descent shall be determined at maximum certificated weight, with one engine inoperative, and the remaining engine(s) operating at a maximum continuous power.

7. By amending § 6.113 (a) to read as follows:

§ 6.113 *Minimum operating speed performance.* (a) Hovering ceilings for helicopters shall be determined over the range of weights, altitudes, and temperatures for which certification is sought with take-off power and landing gear extended in the ground effect at a height above the ground consistent with normal take-off procedures.

8. By amending § 6.114 by deleting the introductory paragraph and inserting in lieu thereof the following: "Landings shall be demonstrated in accordance with the provisions of paragraphs (a) through (d) of this section. Pertinent information concerning the landing procedure including appropriate approach and glide air speeds shall be specified in the Operating Procedure Section of the Rotorcraft Flight Manual (see § 6.742)."

9. By amending § 6.114 by deleting paragraph (e).

10. By amending § 6.203 (d) to read as follows:

§ 6.203 *Structural and dynamic tests.* • • •

(d) Flight stress measurements (see §§ 6.221 and 6.230).

11. By amending § 6.203 by deleting paragraph (f) and by redesignating paragraph (g) as paragraph (f).

12. By amending § 6.230 (c) by deleting the last sentence and inserting in lieu thereof "Higher values of rotor lift shall be acceptable if substantiated by tests and/or data which are applicable to the particular rotorcraft."

13. By amending § 6.234 by revising the title to read "Side load conditions."

14. By amending the first sentence of § 6.234 (a) to read "The rotorcraft shall be assumed to be in a level attitude."

15. By amending the first sentence of § 6.234 (b) to read "Only the wheels aft of the c. g. shall be assumed to be in contact with the ground."

16. By amending the first sentence of § 6.234 (c) to read "The forward and aft wheels shall be assumed to be in contact with the ground."

17. By amending § 6.237 (a) by adding the following sentence to the end of the definition of $W=W_M$: "A rational method may be used in computing a main gear static reaction, taking into consideration the distance between the direction of the main wheel reaction and the aircraft c. g."

18. By amending § 6.237 (a) by deleting the phrase "not in excess of 0.5" from the definition of L.

19. By amending § 6.237 (b) by deleting the phrase "and the rotor lift is assumed to be not greater than 0.75 times the rotorcraft maximum weight" and inserting in lieu thereof "and the rotor lift is assumed to be not greater than 1.5 times the rotor lift used in the limit drop tests".

20. By amending § 6.337 by deleting the first sentence and inserting in lieu thereof "Landing gear wheels may be equipped with any make or type of tire provided that the tire is a proper fit on the rim of the wheel and provided that the approved tire rating is not exceeded."

21. By amending § 6.338 by deleting the first sentence.

22. By deleting § 6.339.

23. By amending § 6.340 to read as follows:

§ 6.340 *General.* The requirements of §§ 6.341 and 6.342 shall apply to the design of floats.

24. By amending § 6.341 (a) (2) to read as follows:

(2) 60 percent in the case of multiple floats.

25. By amending § 6.342 (a) by deleting the phrase "maximum altitude for which the rotorcraft is designed" in the first sentence and inserting in lieu thereof "maximum altitude for which certification with floats is sought".

26. By amending § 6.342 (b) by deleting the second sentence and inserting in lieu thereof "The loads specified may be distributed along the length of the floats."

27. By amending § 6.350 by deleting paragraph (c) and redesignating paragraph (d) as paragraph (c).

28. By amending § 6.420 by deleting the first three sentences.

29. By amending § 6.440 (b) by deleting from the second sentence the words "the total oil capacity of 1 gallon for each 30 gallons of fuel capacity" and inserting in lieu thereof "the usable oil capacity of 1 gallon for each 40 gallons of usable fuel quantity".

30. By deleting § 6.452.

31. By deleting § 6.487.

32. By deleting § 6.488.

33. My amending § 6.604 (a) by deleting subparagraph (4) and redesignating subparagraph (5) as (4).

34. By amending § 6.604 (b) by deleting subparagraph (1) and redesignating the remaining subparagraphs as (1) through (4).

35. By amending § 6.604 by adding a new paragraph (c) to read as follows:

§ 6.604 *Powerplant instruments.* • • •

(c) Means of warning of transmission lubrication malfunction shall be provided for each transmission having an independent oil system (see §§ 6.445 and 6.446).

36. By amending § 6.715 by changing the title to *"Limiting height-speed envelope"* and adding the following sentence at the end of the section: "Such an envelope shall be established in full auto rotation for single engine helicopters and with one engine inoperative for multiengine helicopters (see § 6.741 (f))."

37. By amending § 6.740 (a) to read as follows:

§ 6.740 *General.* (a) A Rotorcraft Flight Manual shall be furnished with each rotorcraft, except that a Rotorcraft Flight Manual is not required for helicopters certificated under this part; instead, the information prescribed in this part for inclusion in the Rotorcraft Flight Manual shall be made available to the operator by the manufacturer in the form of clearly stated placards, markings, or manuals. If all of the operating limitations are not included in the form of placards and markings on the helicopter then the portion of the manual supplied by the manufacturer containing the operating limitations prescribed in § 6.741 shall be approved and furnished with each helicopter.

38. By amending § 6.742 by adding between the words "information" and "peculiar" the words "including take-off and landing procedures and their appropriate air speeds".

39. By amending § 6.743 by deleting the words "(a) through (d)" and inserting in lieu thereof "(a) and (b)".

40. By amending § 6.743 by deleting paragraphs (a) and (c) and redesignating paragraphs (b) and (d) as paragraphs (a) and (b).

Part 7—Rotorcraft Airworthiness; Transport Categories; is proposed to be added as follows:

NOTE: All references to Part 6 in this proposal refer to currently effective Part 6. Also, in the sections which are to be the same in new Part 7 as in currently effective Part 6, references to other sections will be amended so as to refer to the same sections in the new part unless otherwise indicated.

SUBPART A—GENERAL

§ 7.0 *Applicability of this part.* This part establishes standards with which compliance shall be demonstrated for the issuance of and changes to type certificates for transport category A and transport category B rotorcraft. This part, until superseded or rescinded, shall apply to all transport category rotorcraft for which applications for type certification in the transport categories are made after the effective date of this part ( ).

§ 7.1 Same as corresponding section in Part 6 with the following addition:

(j) *Miscellaneous*—(1) *Protective breathing equipment.* Protective breathing equipment is equipment designed to prevent the breathing of noxious gases which might be present as contaminants in the air within the rotorcraft in emergency situations (see § 7.646).

§§ 7.10 through 7.19 Same as corresponding sections in Part 6.

ROTORCRAFT CATEGORIES

§ 7.20 *Rotorcraft categories.* (a) For the purpose of certification under this part, rotorcraft are divided upon the basis of their size and complexity into the following categories:

(1) *Transport category A—suffix A.* Rotorcraft in this category shall be multiengined and may be operated in either scheduled or irregular passenger or cargo service.

(2) *Transport category B—suffix B.* Rotorcraft in this category are limited to 17,500 pounds or less, can be single or multiengined, and may be operated in either scheduled or irregular passenger or cargo service under limited operating conditions.

(b) A multiengined rotorcraft may be certificated under the requirements of a particular category, or in both categories, if all of the requirements of each category are met. Sections of this part which apply to only one category are identified by the appropriate suffix added to the section number, as indicated in paragraph (a) of this section. All sections not identified by a suffix are applicable to both categories except as otherwise specified.

SUBPART B—FLIGHT

GENERAL

§ 7.100 Same as corresponding section of Part 6.

§ 7.101 Same as corresponding section of Part 6 except change subparagraph (b) (2) to read "usable fuel appropriate to the operation contemplated with full pay load."

§§ 7.102 through 7.105 Same as corresponding section of Part 6.

PERFORMANCE

§ 7.110 *General.* (a) The performance prescribed in this subpart shall be determined using normal pilot skill. Compliance shall be shown for sea level standard conditions in still air and for the range of atmospheric variables as selected by the applicant. The performance as affected by engine power, instead of being based on dry air, shall be based on 80 percent relative humidity or 0.7" Hg. vapor pressure whichever is less.

(b) Each set of performance data required for a particular flight condition shall be determined with the powerplant accessories absorbing the normal amount of power appropriate to that flight condition.

§ 7.111 *Limiting height and speeds for safe landing following power failure*—(a) *Category A.* (1) If a range of heights exists at any speed, including zero, within which it is not possible to make a safe landing when the critical engine is suddenly made inoperative with take-off power on the operating engines, the range of heights and its variation with forward speed shall be established (see §§ 7.715 and 7.741 (f)).

(2) A range of heights and its variation with forward speed within which it is not possible to make a safe landing following complete power loss shall also be established (see § 7.743).

(b) *Category B.* If a range of heights exists at any speed, including zero, within which it is not possible to make a safe landing following complete power failure, the range of heights and its variation with forward speed shall be established (see §§ 7.715 and 7.741 (f)).

(c) *Category B: Optional requirements for multiengined rotorcraft.* In lieu of compliance with paragraph (b) of this section, a multiengine rotorcraft that is certificated in accordance with transport category A powerplant installation requirements as well as the transport category A requirement of § 7.384 may, at the option of the applicant, comply with paragraph (a) of this section, provided the rate of climb as determined in accordance with § 7.115 (b) applicable to transport category B rotorcraft at sea level conditions shall not be less than 150 feet per minute.

§ 7.112 *Take-off; general.* (a) The take-off data required by §§ 7.113 and 7.114 shall be determined under the following conditions:

(1) At all weights, altitudes, and temperatures selected by the applicant, and within the range of these variables for which compliance with the minimum climb requirements (§ 7.115) and hovering performance (§ 7.116) can be shown.

(2) With the operating engines not exceeding their approved limitations.

(b) All take-off data, when corrected, shall assume a level take-off surface, and shall be determined on a smooth, dry, hard-surfaced runway, and in such a manner that reproduction of the performance does not require exceptional skill or alertness on the part of the pilot or exceptionally favorable conditions. (For wind and runway gradient corrections see appropriate operating rules of the Civil Air Regulations.)

§ 7.113 *Critical decision point (Category A).* The critical decision point shall be any combination of height and speed as selected by the applicant in demonstrating the distances as defined in § 7.114. The method used to attain the critical decision point shall be such as to avoid flight within the critical areas of the limiting height-speed envelope as established in accordance with § 7.111 (a) (1).

§ 7.114 *Take-off (Category A).* (a) The take-off distance and the take-off flight path shall be established. The take off shall be initiated from a hovering start and shall be accomplished in such a manner that:

(1) If one engine becomes inoperative at or at any point prior to the critical decision point, a safe landing and stop can be made within the take-off area.

(2) If one engine becomes inoperative at or at any point subsequent to the critical decision point, a safe climb-out can be made reaching the end of the take-off area at a height of 25 feet and at the climb-out safety speed not less than the air speed used in meeting the rate of climb specified in § 7.115 (a) and (b) Transport Category A, the remaining operating engines not exceeding their approved limitations.

(3) A safe and smooth transition is provided between the subsequent climb-out configurations with one engine inoperative.

§ 7.114 *Take-off (Category B).* (a) The distance required to take off and climb over a 25-foot obstacle shall be determined under the most unfavorable combination of weight and center of gravity location.

(b) The take off shall be made in a manner such that a landing can be made safely at any point along the flight path in the case of an engine failure (see § 7.111 (b)).

(c) For helicopters the take off shall be initiated from a hovering start.

§ 7.115 *Climb; one-engine-inoperative (Category A)*—(a) *Take-off climb, gear extended.* The steady rate of climb without ground effect shall not be less than 50 feet per minute for each weight, altitude, and temperature condition for which take-off data are to be scheduled with:

(1) The critical engine inoperative and the remaining engines at the take-off power,

(2) Take-off weight,

(3) Center of gravity in the most unfavorable position permitted for take off,

(4) Landing gear extended,

(5) The speed as selected by the applicant (see § 7.114 (a) (2) for Category A),

(6) Cowl flaps or other means of controlling the engine-cooling air supply in the position which provides adequate cooling in the hot-day condition.

(b) *Take-off climb; gear retracted.* The steady rate of climb without ground effect shall not be less than 150 feet per minute for each weight, altitude, and temperature condition for which take-off data are to be scheduled with:

(1) The critical engine inoperative and the remaining engine(s) operating at maximum continuous power,

(2) Take-off weight,

(3) Center of gravity in the most unfavorable position permitted for take off,

(4) Landing gear retracted, if retractable,

(5) The speed as selected by the applicant (see § 7.114 (a) (2) for Category A),

(6) Cowl flaps or other means of controlling the engine-cooling air supply in the position which provides adequate cooling in the hot-day condition.

(c) *En route climb.* The steady rate of climb in feet per minute at any altitude at which the rotorcraft is expected to operate, and at any weight within the range of weights to be specified in the airworthiness certificate, shall be determined with:

(1) The critical engine inoperative, and the remaining engine(s) operating at the maximum continuous power available at such altitude,

(2) Center of gravity in the most unfavorable position,

(3) The landing gear retracted,

(4) The speed as selected by the applicant,

(5) Cowl flaps or other means of controlling the engine-cooling air supply in the position which provides adequate cooling in the hot-day condition.

§ 7.115 *Climb (Category B).* (a) For all rotorcraft, the steady rate-of-climb at the best rate-of-climb speed with maximum continuous power on all engines and landing gear retracted shall be determined over the range of weights, altitudes, and temperatures for which certification is sought (see § 7.740). For all rotorcraft except helicopters this rate-of-climb shall provide a steady angle of climb under standard sea level conditions of not less than 1:6.

(b) For multiengine helicopters, the steady rate-of-climb or descent at maximum weight shall be determined at the best rate-of-climb speed with one-engine-inoperative and the remaining engine(s) operating at a maximum continuous power.

(c) For all helicopters, the steady angle of glide shall be determined at the minimum rate of descent-speed in autorotation at maximum weight.

§ 7.116 *Hovering performance (Category A).* Ability to hover shall be provided and the hovering ceilings determined over the range of weights, altitudes, and temperatures for which take-off data are scheduled with not more than take-off power on all engines, landing gear extended, and in the ground effect at a height above the ground con-

sistent with the procedure used in the establishment of take-off and accelerate-stop distances.

§ 7.116 *Hovering or minimum operating speed performance (Category B).* (a) Hovering ceilings for helicopters shall be determined over the range of weights, altitudes, and temperatures for which certification is sought with take-off power, landing gear extended, and in the ground effect at a height above the ground consistent with normal take-off procedures.

(b) At maximum weight, under standard atmospheric conditions and under conditions prescribed in paragraph (a) of this section, the hovering ceiling for helicopters shall not be less than 4,000 feet.

(c) For rotorcraft other than helicopters, the steady rate-of-climb at the minimum operating speed appropriate to the type with take-off power and landing gear extended shall be determined over the range of weights, altitudes, and temperatures for which certification is sought.

§ 7.117 *Landing; general.* (a) The landing data required by § 7.118 shall be determined under the following conditions:

(1) At all weights, altitudes, and temperatures selected by the applicant.

(2) With the operating engines not exceeding their approved limitations.

(3) The approach and landing shall be made in such a manner that its reproduction does not require an exceptional degree of skill on the part of the pilot or exceptionally favorable conditions.

(4) During the landing there shall be no excessive vertical acceleration and no tendency to bounce, nose over, ground loop, porpoise, or water loop. All landing data, when corrected, shall assume a level landing surface, and shall be determined on a smooth, dry, hard-surfaced runway. (For wind and runway gradient corrections see appropriate operating rules of the Civil Air Regulations.)

§ 7.118 *Landing (Category A)*—(a) *One-engine-inoperative.* The horizontal distance required to land and to come to a complete stop (to a speed of approximately 3 mph for rotorcraft equipped with floats) from a point at a height of 50 feet above the landing surface shall be determined. In making this determination the following conditions shall apply:

(1) The approach shall be made in such a manner that at any point down to the 50 foot height, a safe climb-out can be made reaching the end of the landing area at a height of 25 feet and at the speed used in meeting the rate-of-climb requirement specified in § 7.115 (a) and (b) Transport Category A, with power settings on the operative engines as selected by the applicant but not exceeding take-off power.

(2) The approach and landing path shall be such as to avoid flight within the critical areas of the limiting height-speed envelope as established in accordance with § 7.111 (a) (1).

(b) *Complete failure of all power.* It shall be possible to make a safe landing on a prepared runway surface following complete failure of all power during normal cruising operating conditions.

§ 7.118 *Landing (Category B)*—(a) *Autorotative.* The horizontal distance required to land and come to a complete stop (to a speed of approximately 3 mph for seaplanes or float planes) from a point at a height of 50 feet above the landing surface shall be determined. In making this determination the following shall apply:

(1) The approach speed or speeds in the glide shall be appropriate to the type of rotocraft and shall be chosen by the applicant.

(2) The approach and landing shall be made with power off and shall be entered from steady autorotation.

(3) The approach and landing path shall be such as to avoid flight within the critical areas of the limiting height-speed envelope as established in accordance with § 7.111 (b).

(b) *Optional requirements for multiengined rotorcraft certificated in Transport Category B.* In lieu of compliance with the autorotative landing distance requirements specified in paragraph (a) of this section, a multiengined rotorcraft that complies with the powerplant installation requirements for Category A and § 7.384 for Category A, may, at the option of the applicant, comply with § 7.118, Transport Category A, omitting the climb-out requirement specified in paragraph (a) (1) of that section; provided the rate-of-climb as determined in accordance with § 7.115 (b) for Transport Category B, at standard sea-level conditions, shall be at least 150 feet per minute.

FLIGHT CHARACTERISTICS

7.120 Same as corresponding section in Part 6 except change paragraph (c) to read as follows:

(c) *Night and instrument flight*—(1) *Category A.* Rotorcraft in this category are eligible for night and instrument flight. To be eligible for night and instrument flight the rotorcraft shall be certificated in accordance with such additional flight characteristic rules as the Administrator finds are required for safe operations under these conditions.

(2) *Category B.* In accordance with § 7.20 (a) (2), rotorcraft in this category are not eligible for unlimited night and instrument flight. Rotorcraft in this category, however, are eligible for limited night flight, i. e., night flight under VFR conditions. To be eligible for limited night flight the rotorcraft shall show compliance with such requirements as the Administrator finds are necessary for safe operation under these conditions.

§§ 7.121 through 7.123 Same as corresponding sections in Part 6.

GROUND AND WATER HANDLING CHARACTERISTICS

§§ 7.130 through 7.132 Same as corresponding sections in Part 6.

MISCELLANEOUS FLIGHT REQUIREMENTS

§ 7.140 Same as corresponding section in Part 6.

SUBPART C—STRUCTURES

GENERAL

§§ 7.200 and 7.201 Same as corresponding sections in Part 6.

§ 7.202 Same as corresponding section in Part 6.

§ 7.203 *Structural and dynamic tests.* At least the following structural tests shall be conducted to show compliance with the strength criteria:

(a) Dynamic and endurance tests of rotors and rotor drives, including controls (see § 7.406).

(b) Control surface and system limit load tests (see § 7.323).

(c) Control system operation tests (see § 7.324).

(d) Flight stress measurements (see §§ 7.221, 7.250, and 7.251).

(e) Landing gear shock absorption tests (see § 7.332).

(f) Ground vibration tests to determine the natural frequencies of the blades and major structural components of the rotorcraft.

(g) Such additional tests as may be found necessary by the Administrator to substantiate new and unusual features of the design.

§ 7.204 Same as corresponding section in Part 6 except change paragraph (a) to read: "Maximum and minimum design weights."

FLIGHT LOADS

§ 7.210 Same as corresponding section in Part 6.

§ 7.211 *Flight load factor.* The flight load factor shall be assumed to act normal to the longitudinal axis of the rotorcraft, shall be equal in magnitude, and shall be opposite in direction to the rotorcraft inertia load factor at the center of gravity.

§ 7.212 *Maneuvering conditions.* (a) The rotorcraft structure shall be designed for a positive maneuvering limit load factor of 3.5 and a negative maneuvering limit load factor of 1.0, except that lesser values shall be allowed if the applicant shows by analytical study and flight demonstrations that the probability of exceeding the values selected is extremely remote. Where such lesser values of maneuvering load factor are selected, the values selected shall be appropriate to each design weight condition between design minimum and design maximum values. In no case shall the limit load factors be less than 2.0 positive and 0.5 negative.

(b) Air loads shall be assumed to be applied at the center(s) of the rotor hub(s) and at any auxiliary lifting surface(s) and to act in such directions with distributions of load among the rotor(s) and auxiliary lifting surfaces as necessary to represent all critical maneuvering motions of the rotorcraft applicable to the particular type, including flight at the maximum design rotor tip speed ratio under power-on and power-off conditions.

§ 7.213 *Gust conditions.* The rotorcraft structure shall be designed to withstand the loading due to vertical and horizontal gusts of 30 feet per second

in velocity in conjunction with the critical rotorcraft air speeds, including hovering.

§ 7.214 *Yawing conditions.* The rotorcraft shall be designed for loads resulting from conditions specified in paragraph (a) of this section. Unbalanced aerodynamic moments about the center of gravity shall be reacted in a rational or a conservative manner considering the principal masses furnishing the reacting inertia forces.

(a) At a forward speed of V_{NE} or V_H, whichever is lesser, the following maneuvers shall be considered. The main rotor speed shall be the maximum rotor speed.

(1) With the rotorcraft in unaccelerated flight at zero yaw, it shall be assumed that the cockpit directional control is displaced to the maximum deflection as limited by the control stops in a time interval not greater than 0.4 second.

(2) With the directional control deflected as in subparagraph (1) of this paragraph, it shall be assumed that the rotorcraft yaws to a resulting sideslip angle.

(3) With the rotorcraft yawed to the static sideslip angle corresponding with the directional control deflection specified in subparagraph (1) of this paragraph, it shall be assumed that the directional control is returned to neutral in a time interval not greater than 0.4 second.

CONTROL SURFACE AND SYSTEM LOADS

§ 7.220 Same as corresponding section in Part 6 except change references from §§ 6.221 through 6.225 to §§ 7.221 through 7.226.

§ 7.221 *Auxiliary rotor assemblies.* Auxiliary rotor assemblies shall be tested in accordance with the provisions of § 7.405 for rotor drives. In addition, auxiliary rotor assemblies with detachable blades shall be substantiated for centrifugal loads resulting from the maximum design rotor rpm. In the case of auxiliary rotors with highly stressed metal components, the vibration stresses shall be determined in flight, and it shall be demonstrated that these stresses do not exceed safe values for continuous operation.

§§ 7.222 through 7.224 Same as corresponding sections in Part 6.

§ 7.225 *Primary control systems; general.* Longitudinal, lateral, vertical (collective pitch) and directional control systems shall be designed to the minimum requirements set forth in paragraphs (a) and (b) of this section.

(a) Manually operated control systems, including their supporting structure between the point of application of the pilot applied loads and swash plate(s), rotor blade pitch-control arm or control surface horn shall be designed to withstand the limit pilot applied forces as set forth in subparagraphs (1) through (3) of this paragraph, unless it is shown that the pilot is unable to apply such loads to the system. In the latter event the system shall be designed for the maximum loads which the pilot is able to apply, except that in any case values less than 0.60 of those specified shall not be employed. These pilot loads shall be assumed to act at the appropriate control grips or pads and proper consideration shall be given to effects of servo-mechanisms and automatic pilot systems in assisting the pilot.

(1) Foot type controls—130 pounds.

(2) Stick type controls—100 pounds fore and aft—67 pounds laterally.

(3) Wheel type controls—100 pounds fore and aft—53D inch-pounds couple at the rim of the control wheel (where D is wheel diameter, inches).

(b) The reaction to the applied loads shall be provided as follows:

(1) By the control stops only,

(2) By the control locks only,

(3) By the irreversible mechanism only (with the irreversible mechanism locked and with the control surface in any position within its limit of motion),

(4) By the attachment of the control system to the rotor blade pitch control horn only (with the control in any position within the limits of its motion),

(5) By the attachment of the control system to the control surface horn (with the control in any position within the limits of its motion).

§ 7.226 *Dual primary flight control systems.* (a) When dual controls are provided, the system shall be designed for the pilots operating in opposition, using individual pilot loads equal to 75 percent of those obtained in accordance with § 7.225.

(b) The control system shall be designed for the pilots acting in conjunction using individual pilot loads equal to 75 percent of those obtained in accordance with § 7.225.

LANDING LOADS

§ 7.230 Same as corresponding section in Part 6, except change reference § 6.237 to § 7.332 and §§ 6.231 through 6.236 to §§ 7.231 through 7.236, and revise last sentence of paragraph (c) to read "Higher values of rotor lift shall be acceptable if substantiated by tests and/or data which are applicable to the particular rotorcraft.

§ 7.231 Same as corresponding section in Part 6 except change the words "in paragraph (b)" in paragraph (a) to "in paragraphs (b) and (c)" and add a new section (c) to read as follows:

(c) Drag components simulating the forces required to accelerate the wheel rolling assembly up to the specified ground speed shall be combined with the vertical reactions existing at the instant of peak drag loads. The ground speed for determination of the spin-up loads shall be assumed equal to 75 percent of the optimum forward flight speed for minimum rate of descent in autorotative flight. The vertical loads under this loading condition shall be in accordance with the provisions of § 7.230 (d). It shall be acceptable to apply this condition only to the landing gear and the attaching structure.

§§ 7.232 and 7.233 Same as corresponding section in Part 6.

§ 7.234 Same as corresponding section in Part 6 except for the following revisions:

Revision 1. Change the title of the section to read "*Side load conditions.*"

Revision 2. Change the first sentence of paragraph (a) to read "The rotorcraft shall be assumed to be in level flight."

Revision 3. Change the first sentence of paragraph (b) to read "Only the wheels aft of the center of gravity shall be assumed to be in contact with the ground."

Revision 4. Change the first sentence of paragraph (c) to read "The forward and aft wheels shall be assumed to be in contact with the ground."

§§ 7.235 and 7.236 Same as corresponding section in Part 6.

§ 7.240 Same as corresponding section in Part 6.

§ 7.245 Same as corresponding section in Part 6.

MAIN COMPONENT REQUIREMENTS

§ 7.250 *Main rotor structure.* The requirements of paragraphs (a) through (g) of this section shall apply to the main rotor assemblies including hubs and blades.

(a) The hubs, blades, blade attachments, and blade controls which are subject to alternating stresses shall be designed to withstand the repeated loading conditions likely to occur within the established service life for such parts. The stresses of critical parts shall be determined in flight in all altitudes appropriate to the type of rotorcraft throughout the ranges of limitations prescribed in § 7.204. The service life of such parts shall be established by the applicant on the basis of fatigue tests or other methods found acceptable to the Administrator.

(b) The main rotor structure shall be designed to withstand the critical flight loads prescribed in §§ 7.210 through 7.214.

(c) The main rotor structure shall be designed to withstand the limit loads prescribed in §§ 7.210 through 7.214 under conditions of autorotation necessary for normal operation.

(d) The rotor blades, hubs, and flapping hinges shall be designed to withstand a loading condition simulating the force of the blade impact against its stop during operation on the ground.

(e) The rotor assembly shall be designed to withstand loadings simulating other critical conditions which might be encountered in normal operation.

(f) The rotor assembly shall be designed to withstand, at all rotational speeds, including zero, the maximum torque likely to be transmitted thereto by the rotor drive in both directions. If a torque limiting device is provided in the transmission system, the design limit torque need not be greater than the torque defined by the limiting device, except that in no case shall the design limit torque be less than the limit torque specified in § 7.251 (c). The design torque shall be distributed to the rotor blades in a rational manner.

(g) The rotor assembly shall be designed to withstand the maximum torque likely to be transmitted thereto from sudden applications of the rotor brake if provided. The design torque

shall be equally distributed among the rotor blades.

§ 7.251 *Fuselage, landing gear, and rotor pylon structure.* The requirements of paragraphs (a) through (e) of this section shall apply to the fuselage, landing gear, and rotor pylon structure.

(a) The structure shall be designed to withstand the critical loads prescribed in §§ 7.210 through 7.214. The balancing air loads and inertia loads occurring under the accelerated flight conditions as well as the thrust from auxiliary rotors shall be considered.

(b) The structure shall be designed to withstand the applicable ground loads prescribed in §§ 7.230 through 7.245.

(c) The engine mount and adjacent fuselage structure shall be designed to withstand loads occurring in the rotorcraft under the accelerated flight and landing conditions, including the effects of engine torque loads. In the case of engines having 5 or more cylinders, the limit torque shall be obtained by multiplying the mean torque as defined by the power conditions in § 7.1 (g) (3) by a factor of 1.33. For 4-, 3-, and 2-cylinder engines, the factors shall be 2, 3, and 4, respectively.

(d) The structure shall be designed to withstand the loads prescribed in § 7.250 (d), (f), and (g).

(e) Those parts of the basic structure which are directly subjected to alternating stresses and the sudden failure of which would threaten the structural integrity of the rotorcraft shall be designed to withstand the repeated loading conditions likely to occur within the established service life for such parts. The stresses of critical parts shall be determined in flight in all attitudes appropriate to the type of rotorcraft throughout the ranges of limitations prescribed in § 7.204. The service life of such parts shall be established by the applicant on the basis of fatigue tests or other methods found acceptable to the Administrator.

§ 7.252 *Auxiliary lifting surfaces.* The requirements of paragraphs (a) through (c) of this section shall apply to the auxiliary lifting surfaces.

(a) The structure shall be designed to withstand the critical flight loads prescribed in §§ 7.210 through 7.214.

(b) The structure shall be designed to withstand the applicable ground loads of §§ 7.230 through 7.245.

(c) The structure shall be designed to withstand loadings simulating other critical conditions which might be encountered in normal operations.

EMERGENCY LANDING CONDITIONS

§ 7.260 Same as corresponding section in Part 6.

§ 7.261 *Fuel tank protection.* When fuel tanks are located within the fuselage and below the passenger floor level in such an area where there is a likelihood of tank rupture from ground impact in a crash of a survivable nature (see § 7.260), the fuselage structure in the area of such fuel tanks shall be designed to resist the crash impact and protect the fuel tank from rupture.

NOTE: Fuselage keels whose design and structural strength are such as to resist crash impacts associated with the emergency landing conditions of § 7.260 without extreme distortion which might tend to rupture the fuel tank shall be considered to comply with the requirements of this section.

SUBPART D—DESIGN AND CONSTRUCTION

GENERAL

§§ 7.300 through 7.307 Same as corresponding sections in Part 6.

MAIN ROTOR

§§ 7.310 through 7.312 Same as corresponding sections in Part 6.

§ 7.313 *Rotor blade clearance.* In all flight regimes, clearance between main rotor blades and all other parts of the helicopter shall not be less than 12 inches. For coaxial, inter-meshing, tandem, and laterally disposed multirotor configurations, clearance between main rotor blades of adjacent rotors shall not be less than 6 inches during operation.

CONTROL SYSTEMS

§§ 7.320 and 7.321 Same as corresponding sections in Part 6.

§ 7.322 Same as corresponding section in Part 6 except revise paragraph (a) to read:

(a) The device shall either automatically disengage when the pilot operates the controls in a normal manner, or it shall limit the operation of the rotorcraft in such a manner that the pilot receives unmistakable warning at the start of take off.

§§ 7.323 and 7.324 Same as corresponding sections in Part 6.

§ 7.325 *Control system details; General.* All details of control systems shall be designed and installed to prevent jamming, chafing, and interference from cargo, passengers, and loose objects. Precautionary means shall be provided in the cockpit to prevent the entry of foreign objects into places where they would jam the control systems. Provisions shall be made to prevent the slapping of cables or tubes against other parts of the rotorcraft. The following detailed requirements shall be applicable with respect to cable systems and joints:

(a) *Cable systems.* (1) Cables, cable fittings, turnbuckles, splices, and pulleys shall be of an acceptable type.

(2) The design of cable systems shall preclude any hazardous change in cable tension throughout the range of travel under operating conditions and temperature variations.

(3) Cables smaller than ⅛ inch diameter shall not be used in the primary control system.

(4) Pulley types and sizes shall correspond to the cables with which they are used. ANC–5 pulley-cable combinations and strength values shall be used unless shown to be inapplicable for a particular installation.

(5) All pulleys shall be provided with closely fitted guards to prevent the cables being displaced or fouled.

(6) Pulleys shall lie in the plane passing through the cable within such limits that the cable does not rub against the pulley flange.

(7) Fairleads shall be so installed that they do not cause a change in cable direction of more than 3°.

(8) Clevis pins (excluding those not subject to load or motion) retained only by cotter pins shall not be used in the control system.

(9) Turnbuckles attached to parts having angular motion shall be installed to prevent positively any binding throughout the range of travel.

(10) Provision for visual inspection shall be made at all fairleads, pulleys, terminals, and turnbuckles.

(b) *Joints.* (1) Control system joints subjected to angular motion in push-pull systems, excepting ball and roller bearing systems, shall incorporate a special factor of not less than 3.33 with respect to the ultimate bearing strength of the softest material used as a bearing.

(2) It shall be acceptable to reduce the factor specified in subparagraph (1) of this paragraph to a value of 2.0 for joints in cable control systems.

(3) The approved rating of ball and roller bearings shall not be exceeded.

§§ 7.326 and 7.327 Same as corresponding sections in Part 6.

§ 7.328 *Power boost systems.* If the rotorcraft is equipped with power boost controls, the design of the control system shall be such that the rotorcraft can be flown and landed safely in the event of any single failure in the power boost system.

LANDING GEAR

§ 7.330 *General.* The requirements of §§ 7.331 through 7.338 shall apply to the complete landing gear.

§ 7.331 *Shock absorbers.* (a) The shock absorbing elements for the main, nose, and rear wheel units shall be substantiated by the tests specified in § 7.332.

(b) The shock absorbing ability of the landing gear in taxying shall limit the taxying loads to those values considered under § 7.236.

§ 7.332 Same as § 6.237 except amend the note in paragraphs (a) and (b) as follows:

NOTE: In lieu of more rational computations, the following may be employed when use is made of an effective mass:

$$W_e = W\left[\frac{h+(1-L)d}{h+d}\right]$$

where:

W_e = the effective weight to be used in the drop test (pounds).

$W = W_M$ for main gear units (pounds), equal to the static reaction on the particular unit with the rotorcraft in the most critical attitude; a rational method may be used in computing the main gear static reaction, taking into consideration the distance between the direction of the main wheel reaction and the aircraft c. g.

$W = W_T$ for tail gear units (pounds), equal to the static weight on the tail unit with the rotorcraft in the tail-down attitude.

$W = W_N$ for nose wheel units (pounds), equal to the vertical component of the ground reaction which would exist at the nose wheel, assuming the mass of the rotorcraft acting at the center of gravity and exerting a force of 1.0_g downward and 0.25_g forward.

n = specified free drop height (inches).

L = ratio of assumed rotor lift to the rotorcraft weight.

d = deflection under impact of the tire (at the approved inflation pressure) plus the vertical component of the axle travel relative to the drop mass (inches).

§ 7.332 (b) Same as § 6.237 (b) except change the phrase "and the rotor lift is assumed to be not greater than 0.75 times the rotorcraft maximum weight" to read "and the rotor lift is assumed to be not greater than 1.5 times the rotor lift used in the limit drop tests."

§ 7.333 *Limit load factor determination.* In determining the rotorcraft inertia load factor "n" from the free drop tests specified in § 7.332, the following formula shall be used:

$$n = nf\frac{W_e}{W} \pm L;$$

where nf = the load factor during impact developed on the mass used in the drop tests (i. e., the acceleration dv/dt in g's recorded in the drop tests, plus 1.0).

§ 7.334 *Retracting mechanism*—(a) *General.* (1) The landing gear retracting mechanism, wheel well doors, and supporting structure shall be designed for the loads occurring in the flight maneuvering conditions when the gear is in the retracted position, and for the combination of friction, inertia, and air loads occurring during retraction and extension at any air speed up to the design maximum landing gear extended speed.

(2) The landing gear, the retracting mechanism, and the rotorcraft structure including wheel well doors shall be designed to withstand flight loads, including those in yawed flight, occurring with the landing gear in the extended position at any air speed up to the design maximum landing gear extended speed.

(b) *Landing gear lock.* A positive means shall be provided for the purpose of maintaining the landing gear in the extended position.

(c) *Emergency operation.* When other than manual power for the operation of the landing gear is employed, emergency means of extending the landing gear shall be provided, so that the landing gear can be extended in the event of any reasonably probable failure in the normal retraction system. In any case, the emergency system shall provide for the failure of any single source of hydraulic, electric, or equivalent energy supply.

(d) *Operation test.* Proper functioning of the landing gear retracting mechanism shall be demonstrated by operation tests.

(e) *Position indicator and warning device.* (1) When a retractable landing gear is used, means shall be provided for indicating to the pilot when the gear is secured in the extended and in the retracted positions.

(2) In addition to the requirement of subparagraph (1) of this paragraph, an aural warning device shall be provided which will function continuously if the gear is not fully extended and locked upon approach for a landing.

(3) If a manual shut-off for the warning device prescribed in subparagraph (2) of this paragraph is provided, it shall be installed so that the next retraction of the landing gear will reset the warning mechanism.

(f) *Control.* The location and operation of the landing gear retraction control shall be according to the provisions of § 7.353.

§ 7.335 Same as corresponding section in Part 6.

§ 7.336 *Brakes.* (a) The rotorcraft shall be equipped with brakes of an approved type. The following provisions shall apply:

(1) The maximum kinetic energy capacity rating of each brake assembly shall not be less than the kinetic energy absorption requirement determined as follows:

$$\text{K. E.} = \frac{0.0334\ W\ V^2}{N}$$

where:

K. E. = Kinetic energy per wheel (ft. lbs.)

W = Design landing weight (lbs.)

V = 40 mph unless it is shown that a lesser value would be more applicable for the particular helicopter configuration.

N = Number of wheel-brake assemblies.

NOTE: The expression for kinetic energy assumes an equal distribution of braking between wheel-brake assemblies. In cases of unequal distribution, the expression requires appropriate modification.

(2) The speed rating of each wheel-brake assembly, i. e., the initial speed used in the dynamometer tests, shall not be greater than the "V" used in the determination of kinetic energy in accordance with subparagraph (1) of this paragraph.

NOTE: The provision of this paragraph is based upon the assumption that the testing procedures for wheel-brake assemblies involve a specified rate of deceleration and, therefore, for the same amount of kinetic energy, the rate of energy absorption (the power absorbing ability of the brake) varies inversely with the initial speed.

(b) *Brake system.* The brake system shall be so designed and constructed that in the event of a single failure in any connection or transmitting element in the brake system (excluding the operating pedal or handle), or the loss of any single source of hydraulic or other brake operating energy supply, it shall be possible to bring the rotorcraft to rest under conditions specified in § 7.118 with a mean deceleration during the landing roll of at least 50 percent of that obtained in determining the landing distance as prescribed in that section.

(1) In applying the requirement of paragraph (b) of this section to hydraulic brakes, the brake drum, shoes, and actuators (or their equivalents) shall be considered as connecting or transmitting elements, unless it is shown that the leakage of hydraulic fluid resulting from failure of the sealing elements in these units would not reduce the braking effectiveness below that specified in paragraph (b) of this section.

(2) *Brake controls.* Brake controls shall not require excessive control forces in their operation, and shall be controllable by the pilot and usable during power-off landings.

(3) *Parking brake controls.* A parking brake control shall be provided and installed so that it can be set by the pilot and, without further attention, will maintain sufficient braking to prevent the rotorcraft from rolling on a smooth 10° sloped pavement during moderately high ground-wind conditions. The capacity of this braking device shall be of such adequacy as to insure counteraction of any normal unbalanced torque when starting or stopping the rotors, or during critical engine run-up prior to take off.

§ 7.337 *Tires.* (a) Landing gear tires shall be of a proper fit on the rim of the wheel, and their approved rating shall be such that it is not exceeded under the following conditions:

(1) Rotorcraft weight equal to the maximum design weight.

(2) Load on each main wheel tire equal to the corresponding static ground reaction when considering the critical center of gravity position.

(3) Load on nose wheel tires (to be compared with the dynamic rating established for such tires) equal to the reaction obtained at the nose wheel assuming the mass of the rotorcraft concentrated at the most critical center of gravity and exerting a force of 1.0g downward and 0.25g forward, the reactions being distributed to the nose and main wheels by the principles of statics with the drag reaction at the ground applied only at those wheels which have brakes.

§ 7.338 *Skis.* (a) Landing gear skis shall have load ratings appropriate to the limit loads determined in accordance with the applicable ground load requirements of this part (see § 7.240).

(b) A stabilizing means shall be provided to maintain the ski in an appropriate position during flight and shall have sufficient strength to withstand the maximum aerodynamic and inertia loads to which the ski is subjected.

FLOATS

§ 7.340 *Buoyancy (main floats).* (a) Main floats shall have a buoyancy in excess of that required to support the maximum weight of the rotorcraft in fresh water as follows:

(1) 50 percent in the case of single floats;

(2) 60 percent in the case of multiple floats.

(b) Main floats shall contain at least 5 water-tight compartments of approximately equal volume.

§ 7.341 *Float strength.* Floats shall be designed for the condition set forth in paragraphs (a) and (b) of this section:

(a) *Bag type floats.* Bag type floats shall withstand the maximum pressure differential which might be developed at the maximum altitude for which certification with floats is sought. In addition, the floats shall withstand the maximum expected vertical load distributed

along the length of the bag over three-quarters of the projected bag area.

(b) *Rigid floats.* Rigid type floats shall withstand the maximum expected vertical, aft, and side loads. An appropriate load distribution under critical conditions shall be used.

PERSONNEL AND CARGO ACCOMMODATIONS

§ 7.350 Same as corresponding section in Part 6 except add following statement after paragraph (d): "At all unaccelerated flight conditions within the operating ranges of forward speed, rotor rpm and weight, including hovering flight, the vibration level of the pilots' seats and the cyclic pitch control grip shall be limited as follows: Vibrations at the pilots' seats, in the vertical, longitudinal and lateral directions, shall neither exceed a maximum vibratory acceleration of 0.1g for frequencies up to 32 c. p. s. nor exceed a maximum vibratory single amplitude of 0.001 inch for frequencies greater than 32 c. p. s. Vibrations at the grip of the cyclic control stick, in both lateral and longitudinal directions, shall neither exceed a maximum vibratory acceleration of 0.4g for frequencies up to 32 c. p. s. nor exceed a maximum single amplitude of 0.004 inch for frequencies greater than 32 c. p. s."

Add a new paragraph as follows:

(e) A passageway between the pilot compartment and the passenger compartment shall be provided. Suitable means shall be provided to prevent passengers from entering the pilots' compartment without permission.

§ 7.351 *Pilot compartment vision*—(a) *Non-precipitation conditions.* (1) The pilot compartment shall be arranged to afford the pilot(s) a sufficiently extensive clear and undistorted view for the safe operation of the rotorcraft.

(2) It shall be demonstrated during the day and during the night, where appropriate, by flight tests that the pilot compartment is free of glare and reflection which would tend to interfere with the pilot's vision.

(b) *Precipitation conditions.* (1) Means shall be provided so that the pilot(s) is afforded a sufficiently extensive view to permit safe operation under the following conditions:

(i) In heavy rain at forward speeds up to V_H.

(ii) In the most severe icing condition in which operation of the rotorcraft is approved.

(2) In addition to the means provided in subchapter (1) of this paragraph, the pilot shall be provided with a window openable under the conditions prescribed in subparagraph (1) and which provides the view prescribed in that subparagraph.

§§ 7.352 and 7.353 Same as corresponding sections in Part 6.

§ 7.354 *Doors.* (a) Closed cabins shall be provided with at least one adequate and easily accessible external door.

(b) No passenger door shall be so located with respect to the rotor discs as to endanger persons using the door when appropriate operating instructions are employed.

(c) Means shall be provided for locking crew and external passenger doors and for safeguarding against their opening in flight either inadvertently by persons or as a result of mechanical failure. It shall be possible to open external doors from either the inside or the outside of the cabin while the rotorcraft is on the ground. The means of opening shall be simple and obvious and shall be so arranged and marked that it can be readily loacted and operated.

(d) Reasonable provisions shall be made to prevent the jamming of any external door as a result of fuselage deformation in a minor crash.

(e) Means shall be provided for a direct visual inspection of the locking mechanism by crew members to ascertain whether all external doors, including passenger, crew, service and cargo doors are fully locked. In addition, visual means shall be provided to signal to appropriate crew members that all normally used external doors are closed and in the fully locked position.

(f) For outwardly opening external doors usable by persons for entrance or egress, an auxiliary safety latching device shall be provided which will prevent the door from coming open in the event of difficulties with the primary latching mechanism. If the door will not meet the requirements of paragraph (c) of this section with the auxiliary safety latching device in place, then suitable operating procedures shall be established to insure that the device shall not be in place during take off or landing.

§ 7.355 *Seats and safety belts*—(a) *General.* At all stations designated as occupiable during take off and landing, the seats, belts, harnesses, and adjacent parts of the aircraft shall be such that a person making proper use of these facilities will not suffer serious injury in the emergency landing conditions as a result of inertia forces specified in § 7.260. Seats shall be of an approved type (see also § 7.643 concerning safety belts).

(b) *Arrangement.* (1) Passengers and crew shall be afforded protection from head injuries by one of the following means:

(i) Safety belt and shoulder harness which will prevent the head from contacting any injurious object;

(ii) Safety belt and the elimination of all injurious objects within striking radius of the head;

(iii) Safety belt and a cushioned rest which will support the arms, shoulders, head, and spine.

(2) For arrangements which do not provide a firm handhold on seat backs, hand grips or rails shall be provided along aisles to enable passengers or crew members to steady themselves while using the aisles in moderately rough air.

(3) All projecting objects which would cause injury to persons seated or moving about the aircraft in normal flight shall be padded.

(c) *Strength.* All seats and their supporting structure shall be designed for an occupant weight of 170 pounds with due account taken of the maximum load factors, inertia forces, and reactions between occupant, seat, and safety belt or harness corresponding with all relevant flight and ground load conditions, including the emergency landing conditions prescribed in § 7.260. In addition, the following shall apply:

(1) Pilot seats shall be designed for the reactions resulting from the application of pilot forces to the flight controls as prescribed in § 7.225.

(2) In determining the strength of the seat attachments to the structure and the safety belt or shoulder harness attachments to the seat or structure, the inertia forces specified in § 7.260 (a) shall be multiplied by a factor of 1.33.

§ 7.356 Same as corresponding section in Part 6.

§ 7.357 *Emergency evacuation.* Crew and passenger areas shall be provided with emergency evacuation means to permit rapid egress in the event of crash landings, whether with the landing gear extended or retracted, taking account of the possibility of the rotorcraft being on fire. Passenger entrance, crew, and service doors shall be considered as emergency exits if they meet the applicable requirements of this section.

(a) *Flight crew emergency exits.* Flight crew emergency exits shall be located in the flight crew area on both sides of the rotorcraft or as a top hatch to provide for rapid evacuation. Such exits shall not be required on small rotorcraft where the Administrator finds that the proximity of passenger emergency exits to the flight crew area renders them convenient and readily accessible to the flight crew.

(b) *Passenger emergency exits; type and location.* The types of exits and their location shall be as follows:

(1) Type I: A rectangular opening of not less than 24 inches wide by 48 inches high, with corner radii not greater than 4 inches, located in the passenger area in the side of the fuselage at floor level and as far away as practicable from areas which might become potential fire hazards after a crash.

(2) Type II: Same as Type I (subparagraph (1) of this paragraph) except that the opening is not less than 20 inches wide by 44 inches high.

(3) Type III: A rectangular opening of not less than 20 inches wide by 36 inches high, with corner radii not greater than 4 inches, located in the passenger area in the side of the fuselage and as far away as practicable from areas which might become potential fire hazards after a crash.

(4) Type IV: A rectangular opening of not less than 19 inches wide by 26 inches high, with corner radii not greater than 4 inches, located in the side of the fuselage with a step-up inside the rotorcraft of not more than 29 inches.

NOTE: Larger openings than those specified in paragraph (b) of this section will be acceptable, whether or not of rectangular shape, provided the specified rectangular openings can be inscribed therein, and further provided that the base of the opening affords a flat surface not less than the width specified.

(c) *Passenger emergency exits; number required.* Emergency exits of type and location prescribed in paragraph (b) of this section shall be accessible to the passengers, and shall be provided in accordance with the following table:

Passenger seating capacity	Emergency exits required on side of fuselage			
	Type I	Type II	Type III	Type IV
1–19 inclusive			1	
20–39 inclusive		1		1
40–60 inclusive	1			1

Where more than one emergency exit is required in the side of the fuselage, at least one should be on each side. In addition to the number of exits required for the side of the fuselage an equal number of required types of emergency exits shall be provided in other parts of the fuselage (top, bottom, or ends) so that, in the event of a crash landing in which the fuselage comes to rest on its side, emergency exits shall be available for egress.

(d) *Emergency exit arrangement.* (1) Emergency exits shall consist of movable doors or hatches in the external walls of the fuselage and shall provide an unobstructed opening to the outside.

(2) All emergency exits shall be openable from the inside and from the outside.

(3) The means of opening emergency exits shall be simple and obvious and shall not require exceptional effort of a person opening them.

(4) Means shall be provided for locking each emergency exit and for safeguarding against their opening in flight either inadvertently by persons or as a result of mechanical failure.

(5) Provision shall be made to minimize the possibility of jamming of emergency exits as a result of fuselage deformation in a minor crash landing.

(6) For all emergency exits other than Type IV located above a wing (see paragraph (b) of this section) which are more than 6 feet from the ground with the rotorcraft on the ground and the landing gear extended, acceptable means shall be provided to assist the occupants in descending to the ground.

(7) The proper functioning of emergency exit installations shall be demonstrated by test.

(e) *Emergency exit marking.* (1) All emergency exits, their means of access, and their means of opening shall be marked conspicuously. The identity and location of emergency exits shall be recognizable from a distance equal to the width of the cabin. The location of the emergency exit operating handle and the instructions for opening shall be marked on or adjacent to the emergency exit and shall be readable from a distance of 30 inches.

(2) A source or sources of light, with an emergency supply independent of the main lighting system, shall be installed to illuminate all emergency exit markings. Such lights shall be designed to function automatically in a crash landing and shall also be operable manually.

(3) All emergency exits and their means of opening shall be marked on the outside of the rotorcraft for guidance of rescue personnel.

(f) *Emergency exit access.* Passageways between individual compartments of the passenger area and passageways leading to Type I and Type II emergency exits (see paragraph (b) of this section) shall be unobstructed and shall be not less than 20 inches wide. Adjacent to emergency exits where assisting means are required by paragraph (d) (6) of this section, there shall be sufficient additional space to allow a crew member to assist in the evacuation of passengers without reduction in the unobstructed width of the passageway to such exit.

(g) *Width of main aisle.* The main passenger aisle at any point between seats shall not be less than 15 inches wide up to a height above the floor of 25 inches and not less than 20 inches wide above that height.

§ 7.358 *Ventilation.* (a) All passenger and crew compartments shall be ventilated and crew compartments shall be provided with a sufficient amount of fresh air to enable crew members to perform their duties without undue discomfort or fatigue.

NOTE: A fresh air supply of 10 cubic feet per minute is considered a minimum for each crew member.

(b) Crew and passenger compartment air shall be free from harmful or hazardous concentrations of gases or vapors. The concentration of carbon monoxide shall not exceed 1 part in 20,000 of air under conditions of forward flight. For other configurations of operation, suitable operating restrictions shall be provided if the carbon monoxide concentration exceeds this value.

(c) Provision shall be made to insure the conditions prescribed in paragraph (b) of this section in the event of reasonably probable failures of the ventilating, heating, or other systems and equipment.

NOTE: Examples of acceptable provisions include secondary isolation, integral protective devices, and crew warning and shut-off provisions for equipment the malfunctioning of which could introduce harmful or hazardous quantities of smoke or gases.

§ 7.359 *Heaters.* Combustion heaters shall be of an approved type and shall comply with the fire protection requirements of § 7.383. Engine exhaust heaters shall comply with the provisions of § 7.467 (c) and (d).

FIRE PREVENTION

§ 7.380 *General.* Compliance shall be shown with the fire prevention requirements of §§ 7.380 through 7.385. Additional fire prevention requirements are prescribed in Subparts E and F of this part.

(a) *Hand fire extinguishers.* Hand fire extinguishers shall be of an approved type. The types and quantities of extinguishing agents shall be appropriate for the types of fires likely to occur in the compartments where the extinguishers are intended for use. Extinguishers intended for use in personnel compartments shall be such as to minimize the hazard of toxic gas concentrations.

(b) *Built-in fire extinguishers.* Where a built-in fire extinguishing system is required, its capacity in relation to the compartment volume and ventilation rate shall be sufficient to combat any fire likely to occur in the compartment. All built-in fire extinguishing systems shall be so installed that any extinguishing agent likely to enter personnel compartments will not be hazardous to the occupants and that any discharge of the extinguisher cannot result in structural damage.

§ 7.381 *Cabin interiors.* All compartments occupied or used by the crew or passengers shall comply with the provisions of paragraphs (a) through (f) of this section.

(a) The materials in no case shall be less than flash-resistant.

(b) The wall and ceiling linings, the covering of all upholstery, floors, and furnishings shall be flame-resistant.

(c) Compartments where smoking is to be permitted shall be equipped with ash trays of the self-contained type which are completely removable. All other compartments shall be placarded against smoking.

(d) All receptacles for used towels, paper, waste, shall be of fire-resistant materials and shall incorporate covers or other provisions for containing possible fires.

(e) At least one hand fire extinguisher shall be provided for use by the flight crew.

(f) In addition to the requirements of paragraph (e) of this section, at least the following number of hand fire extinguishers conveniently located for use in passenger compartments shall be provided according to the passenger capacity of the rotorcraft:

Passenger capacity:	*Minimum number of fire extinguishers*
6 or less	0
7 thru 30	1
31 thru 60	2

§ 7.382 *Cargo and baggage compartments.* (a) Cargo and baggage compartments shall be constructed of or completely lined with fire-resistant material. Compartments shall include no controls, wiring, lines, equipment, or accessories, the damage or failure of which would affect the safe operation of the rotorcraft, unless such items are shielded, isolated, or otherwise protected so that they cannot be damaged by movement of cargo in the compartment, and so that any breakage or failure of such items will not create a fire hazard. Design of inaccessible compartments and sealing of these compartments shall be such as to contain cargo compartment fires for a period of time sufficient to permit landing and safe evacuation of the occupants.

NOTE: For compartments having a volume not in excess of 500 cubic feet an airflow of not more than 1,000 cubic feet per hour is considered acceptable. For larger compartments lesser airflow may be applicable.

(b) Cargo and baggage compartments shall be designed or provided with detection devices to insure detection of fires by a crew member while at his

proper station, and to preclude the entrance of harmful quantities of smoke, flame, etc., into crew or passenger compartments.

(c) If compartments are intended to be accessible in flight, protective breathing equipment shall be installed for the use of the appropriate crew member (see § 7.646).

(d) Compliance with the provisions of this section which refer to fire detection and the entry of hazardous quantities of smoke, extinguishing agents, or other noxious gases into the crew and passenger compartments shall be demonstrated in flight.

§ 7.383 *Combustion heater fire protection*—(a) *Combustion heater fire zones.* The following shall be considered as combustion heater fire zones and shall be protected against fire in accordance with the applicable provisions of §§ 7.480 through 7.486 and 7.489:

(1) Region surrounding the heater, if such region contains any flammable fluid system components including the heater fuel system which might be damaged by heater malfunctioning or which, in case of leakage or failure, might permit flammable fluids or vapors to reach the heaters.

(2) That portion of the ventilating air passage which surrounds the combustion chamber, except that this area need not be provided with an extinguishing system if the passage is so constructed that it will contain and withstand any fire which may occur within the passage without damage to other rotorcraft components.

(b) *Ventilating air ducts.* (1) Ventilating air ducts which pass through fire zones shall be of fireproof construction.

(2) Unless isolation is provided by the use of fireproof valves or other equivalently effective means, the ventilating air duct downstream of the heater shall be of fireproof construction for a sufficient distance to assure that any fire originating from within the heater can be contained within the duct.

(3) Portions of ventilating ducts passing through regions in the rotorcraft where flammable fluid systems are located shall be so constructed or isolated from such systems that failure or malfunctioning of the flammable fluid system components cannot introduce flammable fluids or vapors into the ventilating airstream.

(c) *Combustion air ducts.* (1) Combustion air ducts shall be of fireproof construction for a distance sufficient to prevent damage from backfiring or reverse flame propagation.

(2) Combustion air ducts shall not communicate with the ventilating airstream unless it is demonstrated that flames from backfires or reverse burning cannot enter the ventilating airstream under any conditions of ground or flight operation including conditions of reverse flow or malfunctioning of the heater or its associated components.

(3) Combustion air ducts shall not restrict prompt relief of backfires which can cause heater failure due to pressures generated within the heater.

(d) *Heater controls; general.* Provision shall be made to prevent hazardous accumulations of water or ice on or within any heater control components, control system tubing, or safety controls.

(e) *Heater safety controls.* (1) In addition to the components provided for normal continuous control of air temperature, air flow, and fuel flow, means independent of such components shall be provided with respect to each heater to shut off automatically that heater's ignition and fuel supply at a point remote from the heater when the heat exchanger temperature or ventilating air temperature exceeds safe limits or when either the combustion air flow or the ventilating air flow becomes inadequate for safe operation. The means provided for this purpose for any individual heater shall be independent of all components serving other heaters, the heat output of which is essential to the safe operation of the rotorcraft. The means shall also be such that the heater will remain off until restarted by the crew.

(2) Warning means shall be provided to indicate to the crew when a heater, the heat output of which is essential to the safe operation of the rotorcraft, has been shut off by the operation of the automatic means prescribed in subparagraph (1) of this paragraph.

(f) *Air intakes.* Combustion and ventilating air intakes shall be so located that no flammable fluids or vapors can enter the heater system under any conditions of ground or flight operation either during normal operation or as a result of malfunctioning, failure, or improper operation of other rotorcraft components.

(g) *Heater exhaust.* Heater exhaust systems shall comply with the provisions of § 7.467 (a) and (b). In addition, the following shall apply:

(1) Exhaust shrouds shall be sealed so that flammable fluids and hazardous quantities of vapors cannot reach the exhaust systems through joints.

(2) Exhaust systems shall not restrict the prompt relief of backfires which can cause heater failure due to pressures generated within the heater.

(h) *Heater fuel systems.* Heater fuel systems shall comply with all portions of the powerplant fuel system requirements which affect safe heater operation. In addition, heater fuel system components within the ventilating airstream shall be protected by shrouds so that leakage from such components cannot enter the ventilating airstream.

(i) *Drains.* Means shall be provided for safe drainage of fuel accumulations which might occur within the combustion chamber or the heat exchanger. Portions of such drains which operate at high temperatures shall be protected in the same manner as heater exhausts (see paragraph (g) of this section). Drains shall be protected against hazardous ice accumulations in flight and during ground operation.

§ 7.384 *Fire protection of structure, controls, and other parts.*

Category A. All structure, controls, rotor mechanism, and other parts essential to controlled flight and landing of the rotorcraft which would be affected by powerplant fires shall be of fireproof construction.

Category B. Same as § 6.384.

§ 7.385 *Flammable fluid fire protection.* In areas of the rotorcraft where flammable fluids or vapors might be liberated by leakage or failure in fluid systems, design precautions shall be taken to safeguard against the ignition of such fluids or vapors due to the operation of other equipment or to control any fire resulting from such ignition.

MISCELLANEOUS

§ 7.390 Same as corresponding section in Part 6.

§ 7.391 Same as corresponding section in Part 6.

§ 7.392 *Ice protection.* Rotorcraft to be flown in atmospheric icing conditions shall be capable of operating safely in the range of conditions applicable to the operating limitations of the design.

SUBPART E—POWERPLANT INSTALLATION

GENERAL

§ 7.400 *General.* General paragraph same as present § 6.400 (a). Add a new paragraph (a) to read as follows:

(a) Reciprocating engine installations shall comply with the provision of this subpart. Turbine engine installations shall comply with such of the provisions of this subpart as are found applicable to the specific type of installation and such other requirements as may be deemed necessary by the Administrator.

§§ 7.400 (b) through (d). Same as corresponding paragraphs § 6.400.

§ 7.401 *Engines*—(a) *Type certification.* Same as corresponding section in Part 6.

(b) *Category A; engine isolation.* The powerplants shall be arranged and isolated each from the other to permit operation in at least one configuration in a manner such that the failure or malfunctioning of any engine, or of any system of the rotorcraft the failure of which can affect an engine, will not prevent the continued safe operation of the remaining engine(s) or require immediate action by crew members for their continued safe operation.

(c) *Category A; control of engine rotation.* Means shall be provided for stopping and restarting the rotation of any engine individually in flight. All components provided for this purpose which are located on the engine side of the fire wall and which might be exposed to fire shall be of fireproof construction unless more than one means is available for this purpose and provided further that the duplicate controls are so located that all are not likely to be damaged at the same time in case of fire.

§ 7.402 *Engine vibration.* Same as corresponding section in Part 6, except delete last sentence.

ROTOR DRIVE SYSTEM

§ 7.403 *Rotor drive system*—(a) *General.* The rotor drive system shall be considered to include all parts necessary to transmit power between the engine(s) and the main and/or auxiliary rotor hubs. This includes gear boxes, shafting, universal joints, coupling, rotor brake assembly, overrunning and other clutches, supporting bearings for shafting, and any attendant accessory pads

or drives. Cooling fans which are not certificated as part of the engine shall also be considered a part of the rotor drive system.

(b) *Arrangement.* (1) The rotor drive system of a multiengine rotorcraft shall be so arranged that all rotors necessary for operation and control of the rotorcraft will continue to be driven by the remaining engine(s) in the event of failure of any of the engines.

(2) *Category B.* On single-engine rotorcraft the rotor drive system shall be so arranged that all rotors necessary for control of the rotorcraft in autorotative flight will continue to be driven by the main rotor(s) after disengagement of the engine from the main and auxiliary rotors.

(3) The rotor drive system shall incorporate a unit for each engine which will automatically disengage the engine from the drive system in the event of a power failure of any engine.

(4) If a torque limiting device is employed in the rotor drive system (see § 7.250 (f)), such device shall be located to permit continued control of the rotorcraft after the device becomes operative.

(5) On rotorcraft employing rotors which must be phased for intermeshing purposes, the rotor drive system shall provide constant and positive phase relationship under all operating conditions. If a rotor de-phasing device is incorporated, means shall be provided to insure the rotors are locked in proper phase prior to operation.

§ 7.404 *Rotor brakes.* Same as present § 6.411.

§ 7.405 *Rotor drive system and control mechanism tests*—(a) *Endurance tests.* (1) The rotor drive system and rotor control mechanism shall be tested for not less than 200 hours. The test shall be conducted on the rotor craft and the power shall be absorbed by the actual rotors to be installed. The endurance tests shall be conducted in 10-hour test cycles composed of the tests prescribed in subparagraphs (2) through (10) of this paragraph. Compliance with these endurance tests will be accepted for helicopter engine certification in lieu of the endurance testing specified in Part 13 of this subchapter. (The other phases of helicopter engine certification such as vibration, calibration, detonation, operation, and engine inspection will of course require compliance in accordance with Part 13 of this subchapter.)

(2) *Take-off power run.* The take-off power run shall consist of one hour of alternate runs of 5 minutes at take-off power and speed, and 5 minutes at as low an engine idle speed as practicable. The engine shall be declutched from the rotor drive system and the rotor brake, if furnished and so intended, shall be applied during the first minute of the idle run. During the remaining 4 minutes of the idle run, the clutch shall be engaged so that the engine drives the rotors at the minimum practical rpm. Acceleration of the engine and the rotor drive system shall be accomplished at the maximum rate. When declutching the engine, it shall be decelerated at a rate sufficiently rapid to permit the operation of the overrunning clutch. In the absence of a take-off rating, maximum continuous power and speed shall be substituted for take-off power and speed.

(3) *Maximum continuous run.* Three hours of continuous operation at maximum continuous power and speed as follows:

(i) During the run, the main rotor controls shall be operated at a minimum of 15 times each hour through the main rotor pitch positions of full vertical thrust, maximum forward thrust component, maximum aft thrust component, maximum left thrust component, and maximum right thrust component, except that the control movements need not produce loads or blade flapping motion exceeding the maximum loads or motions encountered in flight.

(ii) The directional controls shall be operated at a minimum of 15 times each hour through the control extremes of maximum right turning torque, neutral torque as required by the power applied to the main rotor, and maximum left turning torque.

(iii) Each control position shall be held at maximum for at least 10 seconds and the rate of change or control position shall be at least as rapid as for normal operation.

(4) *90 percent maximum continuous run.* One hour of continuous operation at 90 percent maximum continuous power at maximum continuous speed.

(5) *80 percent maximum continuous run.* One hour of continuous operation at 80 percent maximum continuous power and speed.

(6) *60 percent maximum continuous run.* Two hours of continuous operation at 60 percent maximum continuous power at minimum desired cruising speed or at 90 percent maximum continuous speed, whichever speed is lower.

(7) *Engine malfunctioning run.* It shall be determined whether malfunctioning of such components as the engine fuel or ignition systems or unequal power output from the various engines can result in dynamic conditions which might be detrimental to the drive system. If so, a suitable number of hours of operation shall be accomplished under such conditions, one hour of which shall be included in each cycle, and the remaining hours accomplished at the conclusion of the 20 cycles. Otherwise an additional hour of operation as prescribed in subparagraph (2) of this paragraph shall be substituted.

(8) *Overspeed run.* One hour of continuous operation at 110 percent maximum continuous speed at maximum continuous power.

(9) *Rotor control positions.* Whenever the rotor controls are not being cycled during the tie-down tests, the rotor shall be operated to produce each of the maximum thrust positions for the percentages of test time as follows, using the procedures of subparagraph (3) of this paragraph:

(i) Full vertical thrust, 20 percent.

(ii) Forward thrust component, 50 percent.

(iii) Right thrust component, 10 percent.

(iv) Left thrust component, 10 percent.

(v) Aft thrust component, 10 percent.

(10) *Clutch and brake engagements.* A total of at least 400 clutch and brake engagements including the engagements of subparagraph (2) of this paragraph shall be made during the take-off power runs and, as necessary, at each change of power and speed throughout the test. In each clutch engagement, the shaft on the driven side of the clutch shall be accelerated from rest. The clutch engagements shall be accomplished at the speed and by the method prescribed in the operations manual. During deceleration after each clutch engagement, the engine(s) shall be stopped rapidly enough to allow the engine(s) and rotor(s) drive to be automatically disengaged from the rotor(s). If a rotor brake is installed for the purpose of stopping the rotor, the clutch, during brake engagements, shall be disengaged above 40 percent maximum continuous rotor speed and the rotor(s) allowed to decelerate to 40 percent maximum continuous rotor speed at which time the rotor brake shall be applied. If the clutch design does not permit stopping the rotor(s) with engine running, or if no clutch is provided, the engine shall be stopped before each application of the rotor brake, and then immediately restarted after the rotors have stopped.

(b) *Overspeed test.* After completion of the 200-hour tie-down test and without intervening major disassembly, the rotor drive system shall be subjected to 50 overspeed runs, each 30±3 seconds in duration at 120 percent maximum continuous speed. Overspeed runs shall be alternated with stabilizing runs of 1 to 5 minutes duration each at from 60 to 80 percent maximum continuous speed. Acceleration and deceleration shall be accomplished in a period not longer than 10 seconds, and the time for changing speeds shall not be deducted from the specified time for the overspeed runs. Overspeed runs should be made with the rotor(s) in the flattest pitch at which smooth operation can be obtained. In the event that the engine(s) installed is limited by the engine manufacturer to an overspeed of less than 120 percent of maximum continuous speed for the periods required, the speed employed shall be the highest speed permissible with the engines involved.

(c) *Critical component reliability tests.* Each component within the rotor drive system whose failure will result in an uncontrolled landing, or, in multirotor rotorcraft, which is essential to the phasing of the rotors, or which is common, on multiengine rotorcraft, to more than one engine, shall be designed to have a level of safety equivalent to the main rotors. The stresses in such parts shall be determined for all operating conditions included in paragraph (a) of this section. Components which are affected by flight maneuvering and gust loads shall be additionally investigated for the same flight conditions as the main rotor(s). The service life of such parts shall be determined by fatigue tests or by other methods found acceptable by the Administrator.

(d) *Special tests.* Rotor drive systems designed to operate at two or more gear ratios shall be subjected to special test-

ing and durations found necessary by the Administrator to substantiate the airworthiness of the rotor drive system.

(e) *Category A; gear box bench tests.* Each gear box employed in the rotor drive system shall be tested for 150 hours at 110 percent of its maximum continuous power and speed. The components employed in this test need not be the same as those employed in the tests of paragraph (a) of this section.

(f) *Category B.* Only those components of the drive system whose failure will result in an uncontrolled landing or which are essential either to rotor phasing in a multirotor rotorcraft or as a driving link for essential control rotors in autorotation, need be substantiated in accordance with paragraph (c) of this section. If a complex speed reduction unit is considered a critical component the reliability substantiation may be demonstrated by compliance with paragraph (e) of this section for the particular unit involved.

§ 7.406 *Additional tests.* Same as present § 6.413.

§ 7.407 *Shafting critical speed.* First sentence same as first sentence of § 6.414. Remainder of section to read: "If critical vibration conditions (persistent or momentary) are found in the entire range of operations from and including clutch engagement to maximum overspeed, either during acceleration or deceleration, it shall be demonstrated in the rotorcraft that such vibration is within safe limits. Such demonstration may be made during the endurance testing (see § 7.405 (a)), in which case the test schedule may be altered to include the critical vibratory conditions in lieu of equivalent time in appropriate portions of the endurance test procedure."

§ 7.408 *Shafting joints.* Same as present § 6.415.

FUEL SYSTEM OPERATION AND ARRANGEMENT

§ 7.410 *General.* (a) The fuel system shall be constructed and arranged in such a manner as to assure a flow of fuel to each engine at a rate and pressure which have been established for proper engine functioning under all normal conditions, including all maneuvers for which the rotorcraft is intended. (For fuel system instruments see § 7.604.)

(b) The fuel system shall be so arranged that no one engine or fuel pump can draw fuel from more than one tank at a time unless means are provided to prevent introducing air into the system.

§ 7.411 *Fuel system independence—*

(a) *Category A.* The design of the fuel system shall comply with the requirements of § 7.401 (b). Unless other provisions are made in compliance with this requirement, the fuel system shall be arranged to permit the supply of fuel to each engine through a system independent of any portion of a system supplying fuel to any other engine.

(b) *Category B.* The design of the fuel system for multiengine rotorcraft shall be arranged to permit supplying fuel to each engine through a system independent of all portions of systems supplying fuel to the other engines, except that separate fuel tanks need not be provided for each engine.

§ 7.412 *Fuel lines in personnel and cargo compartments.* (a) Fuel lines shall not pass through portions of the rotorcraft intended to carry personnel or cargo, unless they are so located or protected by drained and ventilated shrouds or other means which will assure that in case of leakage fuel and fumes will be carried safely overboard. Means shall be provided to permit the flight personnel to shut off the supply of fuel to such lines without affecting operation of more than one engine.

(b) Lines which can be isolated from the remainder of the fuel system by means of valves at each end shall incorporate provisions for the relief of excessive pressures which might result from exposure of the isolated line to high ambient temperatures.

§ 7.413 *Fuel flow and feed.* (a) The fuel supply system shall be arranged so that, insofar as practicable, the entire fuel supply can be utilized in the maximum inclinations of the rotorcraft for any sustained conditions of flight and so that the feed ports will not be uncovered during normal maneuvers involving moderate rolling or sideslipping. On rotorcraft with more than one fuel tank, the system shall feed promptly after depleting the usable fuel supply in one tank and another tank is turned on.

(b) The ability of the fuel system to provide the required fuel flow rate shall be demonstrated when the rotorcraft is in the attitude which represents the most adverse sustained condition, from the standpoint of fuel feed, which the rotorcraft is designed to attain. This demonstration may be accomplished by a ground test of the rotorcraft or on a representative operating mock-up of the fuel system. The following conditions are applicable to such demonstration:

(1) *Category A.* The critical attitude (or attitudes) selected shall be verified by a flight demonstration which takes into consideration all operating speeds, power settings, accelerated maneuvers, and engine inoperative conditions.

(2) The quantity of fuel in the tank being considered shall not exceed the amount established as the unusable fuel supply for that tank, as determined by demonstrating compliance with the provisions of § 7.416 (see also §§ 7.418 and 7.613 (b)), together with whatever minimum quantity of fuel it may be necessary to add for the purpose of conducting the flow test.

(3) The fuel shall be delivered to the engine at a pressure not less than the minimum inlet pressure established for proper engine operation in accordance with Part 13 of this subchapter.

(4) If a fuel flowmeter is provided, the meter shall be blocked during the flow test and the fuel shall flow through the meter by-pass.

(c) The fuel flow rate required for the demonstration specified in paragraph (b) of this section shall be as follows:

(1) For gravity feed systems: The fuel flow rate shall be 150 percent of the actual take-off-power fuel consumption of the engine.

(2) For pump systems: The fuel flow rate shall be 0.9 pounds per hour for each rated take-off horsepower or 125 percent of the actual take-off fuel consumption of the engine, whichever is greater.

§ 7.414 *Pump systems.* (a) The fuel flow rate specified in § 7.413 (c) shall be applicable to both the primary engine-driven pump and to the emergency pumps. The fuel flow rate shall be available when the pump is running at the speed at which it normally would be operating during take off. In the case of hand-operated pumps, the speed required shall be not more than 60 complete cycles (120 single strokes) per minute.

(b) Emergency pumps shall be provided to permit supplying all engines with fuel in case of failure of any one main fuel pump, except in the case of installations in which the only fuel pump necessary is an engine fuel injection or fuel metering pump which is approved as an integral part of the engine.

(c) Category A: If the arrangement of the fuel system necessitates a fuel boost pump to maintain operating fuel flow and pressure for the range of altitudes and temperatures in which flight is expected, a duplicate boost pump shall be provided to serve as an emergency pump in case of failure of the main boost pump. Each pump shall be capable of supplying fuel flow at the rate specified in § 7.413 (c).

(d) Category A: Where the provisions of paragraph (c) of this section are applicable, and both boost pumps are dependent upon a common source of power, it shall be possible with these components inoperative to maintain cruising fuel flow and pressure for all engines. The limiting weights, speeds, and altitudes shall be demonstrated and the results recorded in the operating procedures portion of the rotorcraft flight manual.

§ 7.415 *Transfer systems.* The provisions of § 7.413 shall apply to transfer systems, except that the required fuel flow rate for the engine or engines involved shall be established upon the basis of maximum continuous power and its corresponding speed.

§ 7.416 *Determination of unusable fuel supply.* The unusable fuel supply in each tank shall be that quantity at which the first evidence of malfunctioning occurs in any sustained flight condition at the most critical weight and center of gravity position within the approved limitations. The unusable fuel supply shall be determined for each tank used in normal operation. (See also § 7.613 (b).)

§ 7.417 *Fuel system hot weather operation.* (a) The fuel system shall be so arranged as to minimize the possibility of the formation of vapor in the system under all normal conditions of operation. Rotorcraft with suction lift fuel systems or systems which have features likely to produce vapor shall be demonstrated to be free from vapor lock when using fuel at a temperature of 110° F. under critical operating conditions.

(b) Category A: To prove satisfactory hot weather operation the rotorcraft shall be climbed from the altitude of the airport chosen by the applicant to an altitude of 5,000 feet above the terrain, or to the altitude at which the rotorcraft is expected to operate, whichever is the greater. There shall be no evidence of vapor lock or other malfunctioning. The climb test shall be conducted under the following conditions:

(1) All engines shall operate at maximum continuous power, except that take-off power shall be used at the beginning of the demonstration for the maximum time interval for which take-off power is approved for use on the rotorcraft.

(2) The weight shall be with full fuel tanks, minimum crew, and only such ballast as is required to maintain the center of gravity within allowable limits.

(3) The speed of climb shall be the speed for best rate of climb under the conditions of the test.

(4) The fuel temperature shall be not less than 110° F. at the beginning of the demonstration.

(c) Category A: The test prescribed in paragraph (b) of this section shall be performed either in flight or on the ground closely simulating flight conditions. If a flight test is performed in weather sufficiently cold to interfere with the proper conduct of the test, the fuel tank surfaces, fuel lines, and other fuel system parts subjected to cooling action from cold air shall be insulated to simulate, insofar as practicable, flight in hot weather.

§ 7.418 *Flow between interconnected tanks.* (a) Where tank outlets are interconnected and permit flow through the interconnection due to gravity or flight accelerations, it shall not be possible for fuel to flow between tanks in quantities sufficient to cause an overflow of fuel from the tank vent when the rotorcraft is operated in the flight conditions found to be critical for the determination of unusable fuel.

(b) If it is possible to pump fuel from one tank to another in flight, the design of the fuel tank vents and the fuel transfer system shall be such that structural damage to tanks will not occur in the event of overfilling. In addition means shall be provided to warn the crew before overflow through the vents occurs.

FUEL TANK CONSTRUCTION AND INSTALLATION

§ 7.420 *General.* (a) Fuel tanks shall be capable of withstanding without failure all vibration, inertia, fluid, and structural loads to which they may be subjected in operation.

(b) Fuel tanks and their installation shall be designed or protected so as to retain the fuel supply without leakage when the rotorcraft is subjected to the emergency landing conditions specified under § 7.260.

(c) Flexible fuel tank liners shall be of an approved type or shall be shown to be suitable for the particular application.

(d) Integral type fuel tanks shall be provided with facilities for inspection and repair of the tank interior.

§ 7.421 *Fuel tank tests.* (a) Fuel tanks shall be capable of withstanding the following pressure tests without failure or leakage. It shall be acceptable to apply the pressures in a manner simulating the actual pressure distribution in service (where this is practicable.)

(1) Conventional metal tanks, nonmetallic tanks, and integral tanks shall be submitted to a pressure of 3.5 p. s. i. unless the pressure developed during the maximum limit acceleration or emergency deceleration (see § 7.260) of the rotorcraft with a full tank exceeds this value, in which case a hydrostatic head, or equivalent test, shall be applied to duplicate the acceleration loads insofar as possible, except that the pressure need not exceed 3.5 p. s. i. on surfaces not exposed to the acceleration loading.

(2) Nonmetallic tanks the walls of which are supported by the rotorcraft structure shall be submitted to the pressure test of subparagraph (1) of this paragraph when mounted in the rotorcraft structure.

(b) Tanks with large unsupported or unstiffened flat areas or other design or construction features which may possess questionable characteristics from the standpoint of vibration or sloshing shall be capable of withstanding the following test, or other equivalent test, without leakage or failure:

(1) The complete tank assembly together with its supports shall be subjected to a vibration test when mounted in a manner simulating the actual installation.

(2) The tank assembly shall be vibrated for 25 hours at an amplitude of not less than one thirty-second of an inch while filled two-thirds full of water.

(3) The frequency of vibration shall be 90 percent of the maximum continuous rated speed of the engine unless some other frequency within the normal operating range of speeds of the engine or rotor system is more critical, in which case the latter speed shall be employed and the time of test shall be adjusted to accomplish the same number of vibration cycles.

(4) In conjunction with the vibration test, the tank assembly shall be rocked through an angle of 15° on either side of the horizontal (30° total) at the rate of 16 to 20 complete cycles per minute.

(5) The rocking during one-half of the test shall be about an axis parallel to the longitudinal axis of the rotorcraft. For the other half of the test the axis shall be the horizontal axis at right angles to the logitudinal axis of the rotorcraft. If only one axis is critical for tanks with large fineness ratio, the entire test may be conducted by rocking about that axis.

§ 7.422 *Fuel tank installation.* (a) The method of support for fuel tanks shall not permit harmful concentration of loads, resulting from the weight of the fuel in the tank, on unsupported tank surfaces. The following shall be applicable:

(1) Pads shall be provided, if necessary, to prevent chafing between the tank and its supports.

(2) Materials employed for padding shall be nonabsorbent or shall be treated to prevent the absorption of fluids.

(3) If flexible tank liners are employed they shall be so supported that the liner is not required to withstand fluid loads.

(4) Interior surfaces of tank compartments shall be smooth and free of projections which could cause wear of the liner, unless provisions are made for protection of the liner at such points or unless the construction of the liner itself provides such protection.

(b) Spaces adjacent to the surfaces of the tank shall be ventilated consistent with the size of the compartment to avoid accumulation of fuel or fumes in these spaces due to minor leakage. If the tank is in a sealed compartment, it shall be acceptable to limit the ventilation to that provided by drain holes of sufficient size and disposition to prevent clogging and to prevent excessive pressure resulting from altitude changes. If flexible tank liners are installed, the design of the venting arrangement for the spaces between the liner and its container shall take into consideration the need for maintaining proper relationship to tank vent pressures for all expected flight conditions.

(c) Location of fuel tanks shall comply with the provisions of § 7.481 (b).

(d) No portion of rotorcraft skin which lies immediately adjacent to a major air egress opening from the engine compartment shall act as the wall of an integral tank.

(e) Fuel tanks shall be isolated from personnel compartments by means of fumeproof and fuelproof enclosures.

(f) Fuel tanks located in close proximity to personnel compartments, engines, or combustion heaters shall be so designed or protected and installed as to assure that they will retain their contents in accidents of a severity which will produce the decelerations specified in § 7.260.

§ 7.423 *Fuel tank expansion space.* Fuel tanks shall be provided with an expansion space of not less than 2 percent of the tank capacity. It shall not be possible to fill the fuel tank expansion space inadvertently when the rotorcraft is in the normal ground attitude.

§ 7.424 *Fuel tank sump.* (a) Each fuel tank shall be provided with a sump having a capacity of not less than either 0.25 percent of the tank capacity or one-sixteenth of a gallon, whichever is the greater.

(b) The fuel tank sump capacity specified in paragraph (a) of this section shall be effective with the rotorcraft in the normal flight and ground attitudes, and shall be located so that the sump contents cannot be drawn out through the tank outlet opening. The fuel tank shall be constructed to permit drainage of any hazardous quantity of water from all portions of the tank to the sump when the rotorcraft is in the ground attitude.

(c) Fuel tank sumps shall be provided with an accessible and easily operable drain to permit complete drainage of the sump on the ground. The drain

shall discharge clear of all portions of the rotorcraft and shall be provided with means for positive locking of the drain in the closed position, either manually or automatically.

§ 7.425 *Fuel tank filler connection.* (a) The design of fuel tank filler connections shall be such as to prevent the entrance of fuel into the fuel tank compartment or to any other portion of the rotorcraft other than the tank itself. The fuel tank filler shall be marked as prescribed in § 7.738 (b) (1).

(b) Recessed fuel tank filler connections which retain any appreciable quantity of fuel shall incorporate a drain, and the drain shall discharge clear of all portions of the rotorcraft.

(c) The fuel tank filler cap shall provide a fuel-tight seal under the pressure expected to be encountered in normal operation.

(d) *Category A.* Fuel tank filler caps or filler cap covers shall incorporate features which provide a warning indication when caps are not fully locked or seated on the filler connection.

§ 7.426 *Fuel tank vents and carburetor vapor vents.* (a) Fuel tanks shall be vented from the top portion of the expansion space in such a manner that venting of the tank is effective under all normal flight conditions. The following shall be applicable:

(1) The vents shall be arranged to avoid stoppage by dirt or ice formation.

(2) The vent arrangement shall be constructed to preclude the possibility of siphoning fuel during normal operation.

(3) The venting capacity and vent pressure levels shall be appropriate for the tank installation so as to maintain acceptable differences of pressure between the interior and exterior of the tank during normal flight operation, during maximum rate of ascent and descent, and, if applicable, during refueling and defueling.

(4) Air spaces of tanks with interconnected outlets shall also be interconnected.

(5) There shall be no points in the vent line where moisture could accumulate with the rotorcraft in either the ground or the level flight attitude unless drainage is provided.

(6) Vents and drainage shall not terminate at points where the discharge of fuel from the vent outlet would constitute a fire hazard or from which fumes could enter personnel compartments.

(b) Carburetors which are provided with vapor elimination connections shall be provided with a vent line to lead vapors back to one of the fuel tanks. The vents shall comply with the following:

(1) Provisions shall be incorporated in the vent system to avoid stoppage by ice.

(2) If more than one fuel tank is provided and it is necessary to use the tanks in a definite sequence, the vapor vent return line shall lead back to the fuel tank used for take-off and landing.

§ 7.427 *Fuel tank outlet.* A fuel strainer of 8 to 16 meshes per inch shall be provided either for the fuel tank outlet or for the booster pump. Strainers shall comply with the following:

(a) The clear area of the fuel tank outlet strainer shall not be less than 5 times the area of the fuel tank outlet line.

(b) The diameter of the strainer shall not be less than the diameter of the fuel tank outlet.

(c) Finger strainers shall be accessible for inspection and cleaning.

§ 7.428 *Pressure refueling and fueling provisions below fuel level in the tank.* Fueling connections located below the fuel level in a tank shall be provided with means to prevent the escape of hazardous quantities of fuel from the tank in the event of malfunctioning of the fuel entry valve. For systems intended for pressure refueling, in addition to the normal means provided in the rotorcraft for limiting the tank content, a means shall be installed to prevent damage to the tank in case of failure of the normal means.

FUEL SYSTEM COMPONENTS

§ 7.430 *Fuel pumps*—(a) *Main pumps.* (1) If the engine fuel supply is maintained by means of pumps which are not an integral part of the fuel control system certificated as part of the engine, at least one fuel pump for each engine shall be engine-driven.

(2) All positive displacement fuel pumps shall incorporate an integral bypass unless provision is made for a continuous supply of fuel to all engines in case of failure of any one pump. Engine fuel injection pumps which are approved as an integral part of the engine need not incorporate a by-pass.

(b) *Emergency pumps.* Emergency fuel pumps shall be available for immediate use in case of failure of any other fuel pump. No manipulation of fuel valves shall be necessary on the part of the crew to make an emergency fuel pump available to the engine which it is normally intended to serve when the fuel system is being operated in the configuration complying with the provisions of § 7.411.

§ 7.431 *Fuel pump installation.* (a) Provision shall be made to maintain the fuel pressure at the inlet to the carburetor within the range of limits established for proper engine operation.

(b) When necessary for the maintenance of the proper fuel delivery pressure, a connection shall be provided to transmit the carburetor air intake static pressure to the proper fuel pump relief valve connection. In such cases, to avoid erroneous fuel pressure reading, the gauge balance lines shall be independently connected to the carburetor inlet pressure.

(c) The installation of fuel pumps having seals or diaphragms which may be susceptible to leakage shall incorporate provisions for draining away leaking fuel. Drain lines shall terminate at points where discharge of fuel will not create a fire hazard.

§ 7.432 *Fuel system lines and fittings.* (a) Fuel lines shall be installed and supported to prevent excessive vibration and to withstand loads due to fuel pressure, valve actuation, and accelerated flight conditions.

(b) Fuel lines which are connected to components of the rotorcraft between which relative motion could exist shall incorporate provisions for flexibility.

(c) Flexible connections in fuel lines which may be under pressure or subjected to axial loading shall employ flexible hose assemblies rather than hose clamp connections.

(d) Flexible hose shall be of an approved type suitable for the application.

(e) Flexible hoses which might be adversely affected by exposure to high temperatures shall not be employed in locations where excessive temperature will exist during operation or after engine shut-down.

§ 7.433 *Fuel lines and fittings in designated fire zones.* Fuel lines and fittings in all designated fire zones (see § 7.480) shall comply with the provisions of § 7.483.

§ 7.434 *Fuel valves.* In addition to the requirements of § 7.482 for shut-off means, all fuel valves shall be provided with positive stops or suitable index provisions in the "on" and "off" positions, and they shall be supported so that loads resulting from their operation or from accelerated flight conditions are not transmitted to the lines attached to the valve.

§ 7.435 *Fuel strainer.* (a) A strainer incorporating a sediment trap and drain shall be provided in the fuel system between the fuel tanks and the engine and shall be installed in an accessible location.

(b) The strainer shall provide the necessary degree of protection for the fuel pumps, fuel controls, and the engine against dirt, sediment, and other foreign matter which might be present in the fuel. The screen or straining element shall be easily cleaned.

(c) The strainer shall be mounted in a manner not to cause its weight to be supported by the connecting lines or by the inlet or outlet connections of the strainer itself.

§ 7.436 *Fuel system drains.* Complete drainage of the system shall be accomplished by fuel strainer drains and other drains as provided in § 7.424 with the rotorcraft in its normal ground attitude. The following shall apply:

(a) Drains shall discharge clear of all portions of the rotorcraft and shall incorporate means for positive locking of the drain in the closed position, either manually or automatically.

(b) All fuel system drains shall be accessible.

(c) If drainage of the fuel strainer permits compliance with paragraphs (a) and (b) of this section, no additional drains need be provided unless it is possible for a hazardous quantity of water or sediment to be trapped therein. (See also § 7.483 (c).)

§ 7.437 *Fuel quantity indicator.* The fuel quantity indicator (see § 7.613) shall be installed to clearly indicate to the flight crew the quantity of fuel in each tank in flight. When two or more tanks are closely interconnected by a gravity feed system and vented, and it is impossible to feed from each tank

separately, only one fuel quantity indicator need be installed.

§ 7.438 *Low fuel warning device.* On rotorcraft with more than one fuel tank there shall be installed in addition to the fuel quantity indicator (see § 7.604), a warning device to indicate when the fuel in any tank becomes low.

NOTE: The fuel in any tank is considered to be low when there remains approximately a five-minute supply with the rotorcraft in the most critical sustained flight attitude.

OIL SYSTEM

§ 7.440 *General.* (a) Each engine shall be provided with an independent oil system capable of supplying the engine with an appropriate quantity of oil at a temperature not exceeding the maximum which has been established as safe for continuous operation. The oil system for components of the rotor drive system which require continuous lubrication shall be independent of the lubrication systems of the engines to whatever extent is necessary to assure the ability to operate with any engine inoperative and to assure the ability to autorotate safely. (For oil system instruments see §§ 7.604 and 7.735.)

(b) The usable oil capacity shall not be less than the product of the endurance of the rotorcraft under critical operating conditions and the maximum permissible oil consumption of the engine under the same conditions to which product a suitable margin shall be added to assure adequate circulation and cooling of the oil system. In lieu of a rational analysis of rotorcraft endurance and oil consumption, the total usable oil capacity of 1 gallon for each 40 gallons of usable fuel capacity, by volume, shall be considered acceptable.

(c) Oil-fuel ratios lower than those prescribed in paragraph (b) of this section shall be acceptable if substantiated by data on the actual oil consumption of the engine.

(d) The ability of the engine and rotor drive system oil cooling provisions to maintain the oil temperature at or below the maximum established value shall be demonstrated in accordance with pertinent provisions of §§ 7.450 through 7.455.

§ 7.441 *Oil tank construction.* The following requirements shall apply to the construction of the oil tank:

(a) *Oil tank expansion space.* (1) Oil tanks shall have an expansion space of not less than either 10 percent of the tank capacity or 0.5 gallon, whichever is the greater.

(2) Reserve oil tanks which have no direct connection to any engine shall have an expansion space which is not less than 2 percent of the tank capacity.

(3) It shall not be possible to fill the oil tank expansion space inadvertently when the rotorcraft is in the normal ground attitude.

(b) *Oil tank filler connection.* (1) Recessed oil tank filler connections which retain any appreciable quantity of oil shall discharge clear of all portions of the rotorcraft.

(2) The oil tank filler cap shall provide an oil-tight seal under the pressure expected to be encountered in operation.

(3) Category A: Oil tank filler caps or filler cap covers shall incorporate features which provide a warning indication when caps are not fully locked or seated on the filler connection.

(4) The oil filler shall be marked as prescribed in § 7.738 (b) (2).

(c) *Oil tank vent.* (1) Oil tanks shall be vented from the top portion of the expansion space in such a manner that venting of the tank is effective under all normal flight conditions.

(2) Oil tank vents shall be arranged so that condensation of water vapor which might freeze and obstruct the line cannot accumulate at any point. (See also § 7.483 (c).)

(d) *Oil tank outlet.* Provision shall be made either to prevent entrance into the tank itself or into the tank outlet of any foreign object which might obstruct the flow of oil through the system. The oil tank outlet shall not be enclosed by any screen or guard which would reduce the flow of oil below a safe value at any operating temperature condition.

(e) *Flexible oil tank liners.* Flexible oil tank liners shall be of an approved type or shall be shown to be suitable for the particular application.

§ 7.442 *Oil tank tests.* (a) Oil tanks shall be capable of withstanding without failure all vibration, inertia, and fluid loads to which they would be subjected in operation.

(b) The provisions of § 7.421 shall be applicable to oil tanks, except that the test pressure specified in § 7.421 (a) shall be 5 p. s. i.

§ 7.443 *Oil tank installation.* The oil tank installation shall comply with the provisions of § 7.422, except that the location of an engine oil tank in a designated fire zone shall be acceptable if the tank and its supports are of fireproof construction to the extent that damage by fire to any nonfireproof parts would not result in leakage or spillage of oil.

§ 7.444 *Oil lines and fittings*—(a) *General.* The provisions of § 7.432 shall be applicable to oil lines.

(b) *Lines and fittings in designated fire zones.* Oil lines and fittings in all designated fire zones (see § 7.480) shall comply with the provisions of § 7.483.

(c) *Breather lines.* (1) Breather lines shall be arranged so that condensation of water vapor which might freeze and obstruct the line cannot accumulate at any point.

(2) Breathers shall discharge in a location which will not constitute a fire hazard in case foaming occurs and in a manner so that the emitted oil will not impinge upon the pilot windshield.

(3) The breather shall not discharge into the engine air induction system. (See also § 7.483 (c).)

§ 7.445 *Oil valves.* (a) The requirements of § 7.482 for shut-off means shall be complied with. Closing of oil shut-off means shall not prevent autorotation of the rotors.

(b) All oil valves shall be provided with positive stops or suitable index provisions in the "on" and "off" positions, and they shall be supported so that loads resulting from their operation or from accelerated flight conditions are not transmitted to the lines attached to the valve.

§ 7.446 *Oil radiators.* (a) Oil radiators shall be capable of withstanding without failure all vibration, inertia, and oil pressure loads to which they would be subjected in operation.

(b) Oil radiator air ducts shall be located so that, in case of fire, flames cannot impinge directly upon the radiator with the air flow as it would exist either with the engine operating or inoperative.

§ 7.447 *Oil filters.* If the rotorcraft is equipped with an oil filter, the filter shall be constructed or installed in such a manner that complete blocking of the flow through the filter element will not prevent the safe operation of the engine or rotor drive oil supply systems.

§ 7.448 *Oil system drains.* Accessible drains shall be provided to permit safe drainage of the entire oil system and shall incorporate means for the positive locking of the drain in the closed position, either manually or automatically. (See also § 7.483 (c).)

COOLING SYSTEM

§ 7.450 *General.* The powerplant cooling provisions shall be capable of maintaining the temperatures of all powerplant components, engine and transmission fluids, and the carburetor intake air within safe values under all conditions of ground and flight operation. (For cooling system instruments see §§ 7.604 and 7.734.)

§ 7.451 *Cooling tests*—(a) *General.* Compliance with the provisions of § 7.450 shall be demonstrated by flight tests in which the temperatures of selected powerplant components, engine, and transmission fluids are obtained under critical ground, water, and flight operating conditions. If the tests are conducted under conditions which deviate from the maximum anticipated air temperature (see paragraph (b) of this section), the recorded powerplant temperatures shall be corrected in accordance with the provisions of paragraphs (c) and (d) of this section. The corrected temperatures determined in this manner shall not exceed the maximum established safe values. The fuel used during the cooling tests shall be of the minimum octane number approved for the engines involved, and the mixture settings shall be those used in normal operation. The test procedures shall be as outlined in §§ 7.452 through 7.455.

(b) *Maximum anticipated air temperature.* The maximum anticipated air temperature (hot day condition) shall be 100° F., at sea level, decreasing from this value at the rate of 3.6° F. per thousand feet of altitude above sea level until a temperature of −67° F. is reached above which altitude the temperature shall be constant at −67° F.

(c) *Correction factor for cylinder head, oil inlet, carburetor air, and engine and transmission coolant outlet temperatures.* The cylinder head, oil inlet, carburetor air, and engine coolant outlet temperatures shall be corrected by adding the difference between the maximum anticipated air temperature and the

temperature of the ambient air at the time of the first occurrence of maximum head, air, oil, or coolant temperature recorded during the cooling test, unless a more rational correction is shown to be applicable.

(d) *Correction factor for cylinder barrel temperatures.* Cylinder barrel temperatures shall be corrected by adding 0.7 of the difference between the maximum anticipated air temperature and the temperature of the ambient air at the time of the first occurrence of the maximum cylinder barrel temperature recorded during the cooling test, unless a more rational correction is shown to be applicable.

§ 7.452 *Climb cooling test procedure (multiengine rotorcraft only).* (a) The climb cooling test shall be conducted with the engine inoperative which produces the most adverse cooling conditions for the engines and powerplant components remaining in operation.

(b) All remaining engines shall be operated at their maximum continuous power or at full throttle when above the critical altitude.

(c) After stabilizing temperatures in flight, the climb shall be started at or below the lower of the two following altitudes and shall be continued until at least 5 minutes after the occurrence of the highest temperature recorded, or until the maximum altitude is reached for which certification is desired:

(1) 1,000 feet below the engine critical altitude,

(2) 1,000 feet below the maximum altitude at which the rate of climb is equal to 150 fpm.

(d) The climb shall be conducted at an air speed selected to represent a normal operational practice for the configuration being tested. However, if it is determined that characteristics of the cooling provisions make them sensitive to rotorcraft speed, the most critical air speed shall be used, but need not exceed the speed used in determining the rate of climb required in § 7.115 (c). It shall be acceptable to conduct the climb cooling test in conjunction with the take-off cooling test of § 7.453.

§ 7.453 *Category A; take-off cooling test procedure.* A take-off cooling test shall be conducted to demonstrate cooling during take-off and during subsequent climb with one engine inoperative. The following procedure shall be applicable:

(a) The take-off cooling test shall be commenced by stabilizing temperatures while hovering just above ground effect with all engines operating at necessary power with the appropriate cowl flap and shutter settings.

(b) After all temperatures have stabilized, the climb shall be started at the lowest practicable altitude and shall be conducted with one engine inoperative.

(c) The remaining engines shall be operated at take-off rpm and power (or at full throttle when above the take-off critical altitude) for the same time interval as take-off power is used during determination of the take-off flight path (see § 7.114).

(d) At the end of the time interval prescribed in paragraph (c) of this section the power shall be reduced to the maximum continuous power and the climb continued until at least 5 minutes after the occurrence of the highest temperature recorded.

(e) The speed used during take-off power operation (paragraph (c) of this section) shall be the speed used during determination of the take-off flight path (see § 7.114).

§ 7.454 *Category B; cooling test procedure (single engine rotorcraft).* This test shall be conducted as follows:

(a) The cooling test shall be commenced by stabilizing temperatures while hovering just above ground effect with necessary power and appropriate cowl flap and shutter settings.

(b) After all temperatures have stabilized, the climb shall be started at the lowest practicable altitude with take-off power.

(c) Take-off power shall be used for the same time interval as take-off power is used during determination of the take-off flight path (see § 7.114).

(d) At the end of the time interval prescribed in paragraph (c) of this section the power shall be reduced to the maximum continuous power and the climb continued until at least 5 minutes after the occurrence of the highest temperature recorded.

(e) The cooling test shall be conducted at an air speed corresponding to normal operational practice for the configuration being tested. However, if it is determined that characteristics of the cooling provisions make them sensitive to rotorcraft speed, the most critical air speed shall be used, but need not exceed the best rate-of-climb speed with maximum continuous power.

§ 7.455 *Hovering cooling test procedure.* Hovering cooling tests shall be conducted as follows:

(a) With all engines operating at the power required for hovering at maximum certificated weight just above the ground effect at sea level and still wind, until at least 5 minutes after the occurrence of the highest temperature recorded.

(b) With all engines operating at maximum continuous power, rotorcraft at maximum certificated weight, and the altitude resulting in zero rate-of-climb for this configuration, until at least 5 minutes after the occurrence of the highest temperature recorded.

INDUCTION AND EXHAUST SYSTEMS

§ 7.460 *General.* (a) The engine air induction system shall permit supplying the proper quantity of air to the engine under all conditions of operation.

(b) The induction system shall provide air for proper fuel metering and mixture distribution with the induction system valves in any position.

(c) Air intakes shall not open within the engine accessory section nor other areas of the powerplant compartment where emergence of backfire flame would constitute a fire hazard.

(d) Each engine shall be provided with an alternate air source.

(e) Alternate air intakes shall be so located as to preclude the entrance of rain, ice, or any other foreign matter.

§ 7.461 *Induction system de-icing and anti-icing provisions*—(a) *General.* The engine air induction system shall incorporate means for the prevention and elimination of ice accumulations.

(b) *Heat rise.* Unless it is demonstrated that other means will accomplish the intent of paragraph (a) of this section, compliance with the following heat-rise provisions shall be demonstrated in air free of visible moisture at a temperature of 30°F.

(1) Rotorcraft equipped with sea level engines employing conventional venturi carburetors shall have a preheater capable of providing a heat rise of 90°F. when the engine is operating at 60 percent of its maximum continuous power.

(2) Rotorcraft equipped with sea level engines employing carburetors which embody features tending to reduce the possibility of ice formation shall have a preheater capable of providing a heat rise of 70°F. when the engine is operating at 60 percent of its maximum continuous power.

(3) Rotorcraft equipped with altitude engines employing conventional venturi carburetors shall have a preheater capable of providing a heat rise of 120°F. when the engine is operating at 60 percent of its maximum continuous power.

(4) Rotorcraft equipped with altitude engines employing carburetors which embody features tending to reduce the possibility of ice formation shall have a preheater capable of providing a heat rise of 100°F. when the engine is operating at 60 percent of its maximum continuous power.

§ 7.462 *Carburetor air preheater design.* Carburetor air preheaters shall incorporate the following provisions.

(a) Means shall be provided to assure ventilation of the preheater when the engine is being operated with cold air.

(b) The preheater shall be constructed to permit inspection of exhaust manifold parts which it surrounds and also to permit inspection of critical portions of the preheater itself.

§ 7.463 *Induction system ducts.* Induction system ducts shall incorporate the following provisions:

(a) Induction system ducts ahead of the first stage of the supercharger shall be provided with drains to prevent hazardous accumulations of fuel and moisture in the ground attitude. The drains shall not discharge in locations which might cause a fire hazard.

(b) Sufficient strength shall be incorporated in the ducts to prevent induction system failures resulting from normal backfire conditions.

(c) Ducts which are connected to components of the rotorcraft between which relative motion could exist shall incorporate provisions for flexibility.

(d) Induction system ducts within any fire zone for which a fire-extinguishing system is required shall be of fire-resistant construction.

NOTE: Fireproof ducts are required in instances in which the duct may pass through a fire wall.

§ 7.464 *Induction system screens.* If induction system screens are employed,

they shall comply with the following provisions:

(a) Screens shall be located upstream from the carburetor.

(b) Screens shall not be located in portions of the induction system which constitute the only passage through which air can reach the engine, unless the screen is so located that it can be de-iced by heated air.

(c) De-icing of induction system screens by means of alcohol alone in lieu of heated air shall not be acceptable.

(d) It shall not be possible for fuel to impinge upon the screens.

§ 7.465 *Carburetor air cooling.* Installations employing two-stage superchargers shall be provided with means to maintain the air temperature at the inlet to the carburetor at or below the maximum established value. Demonstration of compliance with this provision shall be accomplished in acordance with § 7.451.

§ 7.466 *Inter-coolers and after-coolers.* Inter-coolers and after-coolers shall be capable of withstanding without failure all vibration, inertia, and air pressure loads to which they would be subjected in operation.

§ 7.467 *Exhaust system and installation components*—(a) *General.* (1) The exhaust system shall be constructed and arranged to assure the safe disposal of exhaust gases without the existence of a fire hazard or carbon monoxide contamination of air in personnel compartments.

(2) Unless appropriate precautions are taken, exhaust system parts shall not be located in hazardous proximity to portions of any system carrying flammable fluids or vapors nor shall they be located under portions of such systems where the latter could be subject to leakage.

(3) All rotorcraft components upon which hot exhaust gases might impinge, or which could be subjected to high temperatures due to proximity to exhaust system parts, shall be constructed of firepoof material. All exhaust system components shall be separated by means of fireproof shields from adjacent portions of the rotorcraft which are outside the engine compartment.

(4) Exhaust gases shall not discharge in a manner to cause a fire hazard with respect to any flammable fluid vent or drain.

(5) Exhaust gases shall not discharge at a location which will cause a glare seriously affecting pilot visibility at night.

(6) All exhaust system components shall be ventilated to prevent the existence of points of excessively high temperature.

(7) Exhaust shrouds shall be ventilated or insulated to avoid during normal operation a temperature sufficiently high to ignite any flammable fluids or vapors external to the shrouds.

(b) *Exhaust piping.* (1) Exhaust piping shall be constructed of material resistant to heat and corrosion, and shall incorporate provisions to prevent failure due to expansion when heated to operating temperatures.

(2) Exhaust pipes shall be supported to withstand all vibration and inertia loads to which they would be subjected in operation.

(3) Portions of the exhaust piping which are connected to components between which relative motion could exist shall incorporate provisions for flexibility.

(c) *Exhaust heat exchangers.* (1) Exhaust heat exchangers shall be constructed and installed to assure their ability to withstand without failure all vibration, inertia, and other loads to which they would be subjected in operation.

(2) Heat exchangers shall be constructed of materials which are suitable for continued operation at high temperatures and which are resistant to corrosion due to elements contained in exhaust gases.

(3) Provision shall be made for the inspection of all critical portions of exhaust heat exchangers.

(4) Heat exchangers shall incorporate cooling provisions wherever they are subject to contact with exhaust gases.

(5) Heat exchangers or muffs shall incorporate no stagnant areas or liquid trap which would increase the possibility of ignition of flammable fluids or vapors which might be present in case of failure or malfunctioning of components carrying flammable fluids.

(d) *Exhaust heating of ventilating air.* If an exhaust heat exchanger is used for heating ventilating air used by personnel, a secondary heat exchanger shall be provided between the primary exhaust gas heat exchanger and the ventilating air system, unless it is demonstrated that other means used preclude harmful contamination of the ventilating air.

POWERPLANT CONTROLS AND ACCESSORIES

§ 7.470 *Powerplant controls; general.* Same as corresponding section in Part 6 except add: "In addition, all powerplant controls shall comply with the following:

(a) Controls shall be so located that they cannot be inadvertently operated by personnel entering, leaving, or making normal movements in the cockpit.

(b) Controls shall maintain any set position without constant attention by flight personnel. They shall not creep due to control loads or vibration.

(c) Controls shall have strength and rigidity to withstand operating loads without failure and without excessive deflection."

§ 7.471 *Throttle and A. D. I. system controls.* (a) A separate throttle control shall be provided for each engine. Throttle controls shall be grouped and arranged to permit separate control of each engine and also simultaneous control of all engines in such a manner that proper synchronization of the power of all engines can be readily achieved.

(b) Same of § 6.471 (b).

(c) If an antidetonant injection system is provided, the control shall be incorporated in the throttle controls, except that a separate control may be provided for the antidetonant injection pump.

§ 7.472 *Ignition switches.* (a) Ignition switches shall provide control for each ignition circuit on each engine. Means shall be provided for quickly shutting off all ignition by the grouping of switches or by providing a master ignition control. If a master ignition control is provided, a guard shall be incorporated to prevent inadvertent operation of the control.

§ 7.473 *Mixture controls.* (a) Same as § 6.473.

(b) Any intermediate position of the mixture controls which corresponds with a normal operating setting shall be provided with a means of identification by feel and by vision.

§ 7.474 *Carburetor air preheat controls.* Separate carburetor air preheat controls shall be provided to regulate the temperature of the carburetor air for each engine.

§ 7.475 *Supercharger controls.* Supercharger controls shall be accessible to the pilots, except where a separate flight engineer station with a control panel is provided, in which case they shall be accessible to the flight engineer.

§ 7.476 *Rotor brake controls.* It shall be mechanically impossible to apply the rotor brake in flight.

(a) Means shall be provided to warn the crew if the rotor brake has not been completely released prior to take off.

§ 7.477 *Powerplant accessories.* (a) Same as § 6.474.

(b) Items of electrical equipment subject to arcing or sparking shall be installed in such a way as to minimize the possibility of their contact with any flammable fluids or vapors which might be present in a free state.

(c) If continued rotation of an engine-driven cabin supercharger or any remote accessory driven by the engine will constitute a hazard in case malfunctioning occurs, means shall be provided to prevent hazardous rotation of such accessory without interfering with the continued operation of the engine. (See also § 7.358 (c).)

NOTE: Hazardous rotation may involve consideration of mechanical damage or sustained air flows which may be dangerous under certain conditions.

§ 7.478 *Engine ignition systems.* (a) Battery ignition systems shall be supplemented with a generator which is automatically made available as an alternate source of electrical energy to permit continued engine operation in the event of the depletion of any battery.

(b) The capacity of batteries and generators shall be sufficient to meet the simultaneous demands of the engine ignition system and the greatest demands of any rotorcraft electrical system components which draw electrical energy from the same source.

(1) The design of the engine ignition system shall take into consideration the condition of an inoperative generator and the condition of a completely depleted battery when the generator is running at its normal operating speed.

(2) If only one battery is provided, the design of the engine ignition system

shall take into consideration the condition in which the battery is completely depleted and the generator is operating at idling speed.

(3) Portions of magneto ground wires for separate ignition circuits which lie on the engine side of the fire wall shall be installed, located, or protected so as to minimize the possibility of simultaneous failure of two or more wires as a result of mechanical damage, electrical faults, etc.

(4) Ground wires for any engine shall not be routed through fire zones, except those associated with the engine which the wires serve, unless those portions of the wires which are located in such fire zones are fireproof or are protected against the possibility of damage by fire in a manner to render them fireproof. (See § 7.472 for ignition switches.)

(5) Ignition circuits shall be electrically independent of all other electrical circuits except circuits used for analyzing the operation of the ignition system.

(c) Means shall be provided to warn flight personnel if malfunctioning of any part of the electrical system is causing the continuous discharging of a battery which is necessary for engine ignition. (See § 7.472 for ignition switches.)

POWERPLANT FIRE PROTECTION

§ 7.480 *Designated fire zones.* (a) Designated fire zones shall comprise the following regions: (See also § 7.385.)

(1) Engine power section,

(2) Engine accessory section,

(3) Complete powerplant compartments in which no isolation is provided between the engine power section and the engine accessory section,

(4) Auxiliary power unit compartments,

(5) Fuel-burning heaters and other combustion equipment installations as defined by § 7.383.

(b) Designated fire zones shall be protected from fire by compliance with §§ 7.481 through 7.489.

NOTE: (Category B) For category B rotorcraft, the powerplant fire protection provisions are intended to insure that the main and auxiliary rotors and controls remain operable, the essential rotorcraft structure remains intact, and that the passengers and crew are otherwise protected for a period of at least 5 minutes after the start of an engine fire to permit a controlled autorotational landing.

§ 7.481 *Flammable fluids.* (a) No tanks or reservoirs which are a part of a system containing flammable fluids or gases shall be located in designated fire zones, except where the fluid contained, the design of the system, the materials used in the tank and its supports, the shut-off means, all connections, lines, and controls are such as to provide an equally high degree of safety.

(b) Fuel tanks shall be isolated from the engines by a fire wall or shroud. Not less than one-half inch of clear air space shall be provided between any tank or reservoir and a fire wall or shroud isolating a designated fire zone, unless other equivalent means are used to protect against heat transfer from the fire zone to the flammable fluid.

(c) No component of a flammable fluid-carrying system shall be located in close proximity to materials which can absorb such a fluid.

§ 7.482 *Shut-off means.* (a) Means for each individual engine and for each individual fire zone specified in § 7.480 (a) shall be provided for shutting off or otherwise preventing hazardous quantities of fuel, oil, de-icer, and other flammable fluids from flowing into, within, or through any designated fire zone, except that means need not be provided to shut-off flow in lines forming an integral part of an engine.

Category B: In installations using engines of less than 500 cu. in. displacement, shut-off means need not be provided for engine oil systems.

Category A: It shall be shown that no hazardous quantity of flammable fluid could drain into any designated fire zone after shutting off has been accomplished. Closing the fuel shut-off valve for any engine shall not make any of the fuel supply unavailable to the remaining engines.

(b) Operation of the shut-off means shall not interfere with the subsequent emergency operation of other equipment, such as declutching the engine from the rotor drive.

(c) The shut-off means shall be located outside of designated fire zones, unless an equally high degree of safety is otherwise provided (see § 7.481).

(d) Provision shall be made to guard against inadvertent operation of the shut-off means, and to make it possible for the crew to reopen the shut-off means in flight after it has once been closed.

§ 7.483 *Lines and fittings.* Same as § 6.485.

§ 7.484 *Fire extinguishing systems*—(a) *General.* (1) Fire extinguishing systems shall be provided to serve all designated fire zones.

Category B: In installations employing engines of 1,500 cu. in. or less displacement, fire extinguishing systems need not be provided.

(2) The fire extinguishing system, the quantity of extinguishing agent, and the rate of discharge shall be such as to provide two adequate discharges. It shall be possible to direct both discharges to any main engine installation. Individual "one-shot" systems shall be acceptable in the case of auxiliary power units, fuel-burning heaters, and other combustion equipment.

Category B: On single-engine rotorcraft, the quantity of extinguishing agent and the rate of discharge shall be such as to provide one adequate discharge for the engine compartment.

(3) The fire extinguishing system for a powerplant shall be capable of protecting simultaneously all zones of the powerplant compartment for which protection is provided,

(b) *Fire extinguishing agents.* Same as § 6.488 (b).

(c) *Extinguishing agent container pressure relief.* Same as § 6.488 (c).

(d) *Extinguishing agent container compartment temperature.* Same as § 6.488 (d).

(e) *Fire extinguishing system materials.* Same as § 6.488 (e).

§ 7.485 *Fire detector systems.* Quick-acting fire detectors of an approved type shall be provided in all designated fire zones, and they shall be sufficient in number and location to assure prompt detection of fire in such zones. Fire detectors shall comply with the following provisions:

(a) through (d) same as § 6.487 (a) through (d).

(e) Detector system components for any fire zone shall not pass through other fire zones, unless they are protected against the possibility of false warnings resulting from fires in zones through which they pass. This requirement shall not be applicable with respect to zones which are simultaneously protected by the same detector and extinguishing systems.

Category B: In installations employing engines of 900 cu. in. or less displacement, fire detectors need not be provided.

§ 7.486 *Fire wall.* Engines shall be isolated from personnel compartment by means of fire walls, shrouds, or other equivalent means. They shall be similarly isolated from the structure, controls, rotor mechanism, and other parts essential to controlled flight and landing of the rotorcraft, unless such parts are protected in accordance with the provisions of § 7.384. All auxiliary power units, fuel-burning heaters, and other combustion equipment which are intended for operation in flight shall be isolated from the remainder of the rotorcraft by means of fire walls, shrouds, or other equivalent means. In complying with the provisions of this section, account shall be taken of the probable path of a fire as affected by the air flow in normal flight and in autorotation. The following shall apply:

(a) through (c) same as § 6.483 (b) through (d) respectively.

§ 7.487 *Cowling.* (a) Same as § 6.484 (a).

(b) Cowling shall have drainage and ventilation provisions as prescribed in § 7.489.

(c) On rotorcraft equipped with a diaphragm complying with § 7.488, the parts of the accessory section cowling which might be subject to flame in the event of a fire in the engine power section of the powerplant shall be constructed of fireproof material and shall comply with the provisions of § 7.486.

(d) Same as § 6.484 (d).

(e) Category A: The rotorcraft shall be so designed and constructed that fire originating in any fire zone cannot enter, either through openings or by burning through external skin, into any other zone or region where such fire would create additional hazards. If the rotorcraft is provided with a retractable landing gear, this provision shall apply with the landing gear retracted. Fireproof materials shall be used for all skin areas which might be subjected to flame in the event of a fire originating in the engine power or accessory sections.

§ 7.488 *Category A; engine accessory section diaphragm.* Unless equivalent protection can be shown by other means, a diaphragm shall be provided on air-

cooled engines to isolate the engine power section and all portions of the exhaust systems from the engine accessory compartment. This diaphragm shall comply with the provisions of § 7.486.

§ 7.489 *Drainage and ventilation of fire zones.* (a) Provision shall be made for the rapid and complete drainage of all portions of designated fire zones in the event of failure or malfunctioning of components containing flammable fluids. The drainage provisions shall be so arranged that the discharged fluid will not cause an additional fire hazard.

(b) All designated fire zones shall be ventilated to prevent the accumulation of flammable vapors. Ventilation openings shall not be placed in locations which would permit the entrance of flammable fluids, vapors, or flame from other zones. The ventilation provisions shall be so arranged that the discharged vapors will not cause an additional fire hazard.

(c) Category A: Except with respect to the engine power section of the powerplant compartment, provision shall be made to permit the crew to shut off sources of forced ventilation in any fire zone, unless the amount of extinguishing agent and rate of discharge are based on maximum air flow through the zone.

SUBPART F—EQUIPMENT

GENERAL

§§ 7.600 through 7.602 Same as corresponding sections in Part 6.

§ 7.603 *Flight and navigational instruments.* (See § 7.612 for installation requirements.)

(a) Air-speed indicating system,
(b) Altimeter (sensitive),
(c) Clock (sweep-second),
(d) Free air temperature indicator,
(e) Gyroscopic bank and pitch indicator (non-tumbling type),
(f) Gyroscopic rate-of-turn indicator (with slip indicator),
(g) Gyroscopic direction indicator,
(h) Magnetic direction indicator,
(i) Rate-of-climb indicator (vertical speed).

§ 7.604 *Powerplant instruments.* (See § 7.613 for installation requirements.)

(a) Carburetor air temperature indicator for each engine.

(b) Cylinder head temperature indicator for each air-cooled engine, or coolant temperature for each liquid-cooled engine.

(c) (1) Category A: An individual fuel pressure indicator for each engine and either an independent warning device for each engine or a master warning device for all engines with means for isolating the individual warning circuit from the master warning device.

(2) Category B: An individual fuel pressure indicator for each engine.

(d) Category A: Fuel flowmeter indicator or fuel mixture indicator for each engine not equipped with an automatic altitude mixture control.

(e) Fuel quantity indicator for each fuel tank (see § 7.437).

(f) Low fuel warning device for each tank if a multi-tank system is employed (see § 7.416).

(g) Manifold pressure indicator for each engine, if altitude engines are used.

(h) (1) Category A: An individual oil pressure indicator for each engine and either an independent warning device for each engine or a master warning device for all engines with means for isolating the individual warning circuit from the master warning device.

(2) Category B: An individual oil pressure indicator for each engine.

(i) An oil pressure warning device for each pressure lubricated gear box to indicate when the oil pressure falls below a safe value.

(j) Oil quantity indicator for each oil tank and each rotor drive gear box, if lubricant is self-contained.

(k) Oil temperature indicator for each engine.

(l) An oil temperature warning device to indicate when the oil temperature in any rotor drive gear box exceeds a safe value.

(m) Tachometer for each engine. (These tachometers may be combined in a single instrument with that required by paragraph (n), except that such an instrument shall indicate rotor rpm during autorotation.)

(n) Tachometer(s) to indicate rotor rpm of the main rotor(s), or for each main rotor, the speed of which can vary appreciably with respect to another main rotor.

(o) Category A: Fire warning indicators (see § 7.485).

(o) Category B: Fire warning indicators when fire detection is required (see § 7.485).

(p) A device for each engine capable of indicating to the flight crew during flight any change in the power output, if the total engine cylinder displacement is more than 2,000 cubic inches.

§ 7.605 *Miscellaneous equipment.* There shall be installed:

(a) Approved seats for all occupants (see § 7.355).

(b) Approved individual safety belts for all occupants (see § 7.643).

(c) A master switch arrangement for electrical circuits other than ignition (see § 7.622 (c)).

(d) A source(s) of electrical energy (see § 7.620).

(e) Electrical protective devices (see § 7.624).

(f) Hand fire extinguishers (see §§ 7.380 (a) and 7.381 (e) and (f)).

(g) Windshield wiper or equivalent for each pilot (see § 7.351 (b)).

(h) Radio communication system (two-way).

(i) Ignition switch for each and all engines (see § 7.472).

§ 7.606 *Equipment, systems, and installations*—(a) *Functioning and reliability.* All equipment, systems, and installations, the functioning of which is necessary in showing compliance with the Civil Air Regulations shall be designed and installed to insure that they will perform their intended functions reliably under all reasonably foreseeable operating conditions.

(b) *Hazards.* All equipment, systems, and installations shall be designed to safeguard against hazards to the rotorcraft in the event of their malfunctioning or failure.

(c) *Category A; power supply.* Where an installation, the functioning of which is necessary in showing compliance with the Civil Air Regulations, requires a power supply, such installation shall be considered an essential load on the power supply, and the power sources and the system shall be capable of supplying the following power loads in probable operating combinations and for probable durations:

(1) All loads connected to the system with the system fuctioning normally;

(2) All essential loads after failure of any one prime mover, power converter, or energy storage device;

(3) All essential loads after failure of any one engine on two- or three-engine rotorcraft, or after failure of any two engines on rotorcraft with four or more engines.

(4) In determining the probable operating combinations and durations of essential loads for the partial power failure conditions prescribed in subparagraphs (2) and (3) of this paragraph, it shall be permissible to assume that the power loads are reduced in accordance with a monitoring procedure which is consistent with safety in the types of operations authorized. If a particular load is not required to maintain controlled flight, it need not be considered for the two-engine inoperative condition on rotorcraft with four or more engines as prescribed in subparagraph (3) of this paragraph.

INSTRUMENTS; INSTALLATION

§ 7.610 *General.* The provisions of §§ 7.611 through 7.613 shall apply to the installation of instruments in rotorcraft.

NOTE: It may be necessary to duplicate certain instruments at two or more crew stations for either of the following reasons:

(1) When necessary to meet the instrument visibility requirements specified in § 7.611, or

(2) When required by the operating rules for reliability or cross check purposes in particular types of operations. In this case independent operating systems are required in accordance with the provisions of § 7.612 (f).

§ 7.611 *Arrangement and visibility of instrument installations.* (a) Flight, navigation, and powerplant instruments for use by each pilot shall be plainly visible to him from his station with the minimum practicable deviation from his normal position and line of vision when he is looking out and forward along the flight path.

(b) The required instruments consisting of the airspeed indicator, gyroscopic direction indicator, gyroscopic bank and pitch indicator, gyroscopic turn and bank indicator, altimeter, rate of climb indicator, rotor tachometer(s) and manifold pressure indicator, shall be grouped and shall be centered as nearly as practicable about the vertical plane of the pilot's forward vision. Additional instruments considered of prime importance to the safe operation of the rotorcraft shall be included in the grouping.

(c) All other required powerplant instruments shall be closely grouped on the instrument panel.

(d) Identical powerplant instruments for the several engines shall be located to prevent any misleading impression as the engines to which they relate.

(e) Powerplant instruments vital to the safe operation of the rotorcraft shall be plainly visible to the appropriate crew members.

(f) The vibration characteristics of the instrument panel shall be such as not to impair seriously the accuracy of the instruments or to damage them.

§ 7.612 *Flight and navigational instruments*—(a) *Air-speed indicating systems.* (1) Air-speed indicating instruments shall be calibrated to indicate true air speed at sea level in the standard atmosphere with a minimum practicable instrument calibration error when the corresponding pitot and static pressures are applied to the instrument.

(2) The air-speed indicating system shall be calibrated in flight to determine the system error, i. e., the relation between IAS and CAS.

(3) The air-speed error of the installation, excluding the air-speed indicator instrument calibration error, shall not exceed 3 percent or 5 mph, whichever is the greater, throughout the speed range at forward speeds of 10 mph or over.

(4) The air-speed indicating system shall be arranged insofar as practicable to preclude malfunctioning or serious error due to the entry of moisture, dirt, or other substances.

(5) The air-speed indicating system shall be provided with a heated pitot tube or equivalent means of preventing malfunctioning due to icing.

(b) *Static air vent and pressure altimeter systems.* (1) All instruments provided with static air case connections shall be vented to the outside atmosphere through an appropriate piping system.

(2) The vent(s) shall be so located on the rotorcraft that its orifices will be least affected by air flow variation, moisture, or other foreign matter.

(3) The installation shall be such that the system will be air-tight, except for the vent into the atmosphere.

(4) Pressure altimeters shall be of an approved type and shall be calibrated to indicate pressure altitude in standard atmosphere with a minimum practicable instrument calibration error when the corresponding static pressures are applied to the instrument.

(5) The design and installation of the altimeter system shall be such that the error in indicated pressure altitude at sea level in standard atmosphere, excluding instrument calibration error, does not result in a reading more than 10 feet high nor more than 30 feet low in the speed range 0 mph to 0.9 of V_H.

(c) *Magnetic direction indicator.* (1) The magnetic direction indicator shall be installed so that its accuracy will not be excessively affected by the rotorcraft's vibration or magnetic fields of a permanent or transient nature.

(2) After the magnetic direction indicator has been compensated, the calibration shall be such that the deviation in level flight does not exceed ±10° on any heading.

(3) A calibration placard shall be provided as specified in § 7.733.

(d) *Automatic pilot system.* If an automatic pilot system is installed, it shall be of an improved type, and the following shall be applicable:

(1) The system shall be so designed that the automatic pilot can either:

(i) Be quickly and positively disengaged by the human pilots to prevent it from interfering with their control of the rotorcraft, or

(ii) Be sufficiently overpowered by one human pilot to enable him to control the rotorcraft.

(2) A means shall be provided to indicate readily to the pilot the alignment of the actuating device in relation to the control system which it operates, except when automatic synchronization is provided.

(3) The manually operated control(s) for the system's operation shall be readily accessible to the pilots.

(4) The automatic pilot system shall be of such design and so adjusted that, within the range of adjustment available to the human pilot, it cannot produce hazardous loads on the rotorcraft or create hazardous deviations in the flight path under any conditions of flight appropriate to its use either during normal operation or in the event of malfunctioning, assuming that corrective action is initiated within a reasonable period of time.

(e) *Instruments utilizing a power supply.* Each required flight instrument utilizing a power supply shall be provided with two independent sources of power, a means of selecting either power source, and a means of indicating the adequacy of the power being supplied to the instrument. The installation and power supply system shall be such that failure of any flight instrument connected to one source, or of the energy supply from one source, or a fault in any part of the power distribution system, will not interfere with the proper supply of energy from the other source. (See also §§ 7.606, 7.620, and 7.658.)

(f) *Duplicate instrument systems.* If duplicate flight instruments are required by the regulations of this subchapter (see note under § 7.610), the operating system for a duplicate instrument shall be completely independent of the operating system for the duplicated instrument. Additional instruments shall not be connected to the first pitot system. If additional instruments are connected to the other system, provision shall be made to disconnect or isolate in flight such additional instruments.

§ 7.613 *Powerplant instruments*—(a) *Instrument lines.* (1) Powerplant instrument lines carrying flammable fluids or gases under pressure shall be provided with restricted orifices or equivalent safety devices at the source of the pressure to prevent the escape of excessive fluid or gas in case of line failure.

(2) The provisions of §§ 7.432 and 7.433 shall be made applicable to powerplant instrument lines.

(b) *Fuel quantity indicator.* Means shall be provided to indicate to the flight crew the quantity in gallons or equivalent units of usable fuel in each tank during flight. The following shall apply:

(1) Tanks, the outlets and air spaces of which are interconnected, shall be considered as one tank for the purpose of providing separate indicators.

(2) Exposed sight gauges shall be protected against damage.

(3) Fuel quantity indicators shall be calibrated to read zero during level flight when the quantity of fuel remaining in the tank is equal to the unusable fuel supply as defined by § 7.416 (see § 7.736).

(c) *Fuel flowmeter system.* When a flowmeter system is installed, the metering component shall include a means for by-passing the fuel supply in the event that malfunctioning of the metering component results in a severe restriction to fuel flow.

(d) *Oil quantity indicator.* (1) A stick gauge or other equivalent means shall be provided to indicate the quantity of oil in each tank and in each transmission gear box (see § 7.735).

ELECTRICAL SYSTEM AND EQUIPMENT

§ 7.620 *General.* The provisions of §§ 7.621 through 7.627 shall apply to all electrical systems and equipment (see also § 7.606).

§ 7.621 *Electrical system capacity.* The required generating capacity and the number and type of power sources shall be determined by an electrical load analysis and shall comply with § 7.606 (c) and (d).

§ 7.622 *Generating system.* (a) The generating system shall be considered to include electrical power sources, main power busses, transmission cables, and associated control, regulation, and protective devices.

(b) The generating system shall be so designed that the power sources function properly both when connected in combination and independently, and the failure or malfunctioning of any power source cannot create a hazard or impair the ability of the remaining sources to supply essential loads.

(c) Means accessible in flight to appropriate crew members shall be provided for the individual and collective disconnection of electrical power sources for the main bus.

(d) Means shall be provided to indicate to appropriate crew members those generating system quantities which are essential for the safe operation of the system.

NOTE: The voltage and current supplied by each generator are quantities considered essential.

§ 7.623 *Distribution system.* (a) The distribution system shall be considered to include all distribution busses, their associated feeders, and control and protective devices.

(b) Individual distribution systems shall be designed to insure that essential load circuits can be supplied in the event of reasonably probable faults or open circuits.

(c) Where two independent sources of electrical power for particular equipment or systems are required by the Civil Air

Regulations, their electrical energy supply shall be assured.

NOTE: Various means may be used to assure a supply, such as duplicate electrical equipment, throw-over switching, and multi-channel or loop circuits separately routed.

§ 7.624 *Electrical protection.* (a) Automatic protective devices shall be provided to minimize distress to the electrical system and hazard to the rotorcraft in the event of wiring faults or serious malfunctioning of the system or connected equipment.

(b) In the generating system, means shall be provided to automatically deenergize and disconnect from the main bus any power source which develops hazardous overvoltage.

(c) All resettable type circuit protective devices shall be so designed that, when an overload or circuit fault exists, they will open the circuit irrespective of the position of the operating control.

(d) Protective devices or their controls used in essential load circuits shall be accessible for resetting in flight.

(e) Circuits for essential loads shall have individual circuit protection.

NOTE: This provision does not necessarily require individual protection for each circuit in an essential load system, e. g., each position light in the system.

(f) If fuses are used, there shall be provided spare fuses for use in flight equal to at least 50 percent of the number of fuses of each rating required for complete circuit protection.

§ 7.625 *Electrical equipment and installation.* (a) In showing compliance with § 7.606 (a) and (b) with respect to the electrical system, equipment, and installation, consideration shall be given to critical environmental conditions.

NOTE: Critical environmental conditions may include temperature, pressure, humidity, ventilation, position, acceleration, vibration, and presence of detrimental substances.

(b) All electrical equipment, controls, and wiring shall be so installed that operation of any one unit or system of units will not affect adversely the simultaneous operation of any other electrical unit or system of units essential to the safe operation of the rotorcraft.

(c) Cables shall be grouped, routed, and spaced so that damage to essential circuits will be minimized in the event of faults in heavy current-carrying cables.

(d) Batteries and their installations shall provide for ventilation, drainage of fluids, venting of gases, and protection of other parts of rotorcraft from corrosive battery fluids.

§ 7.626 *Electrical system fire and smoke protection.* The design and installation of all components of the electrical system shall be in compliance with pertinent fire and smoke protection provisions of §§ 7.358 (c) and 7.385. All electrical cables, terminals and equipment which are necessary in emergency procedures and which are located in designated fire zones shall be fire resistant.

LIGHTS

§§ 7.630 and 7.631 Same as corresponding sections in Part 6.

§ 7.632 *Position light system installation*—(a) *General.* The provisions of §§ 7.632 through 7.635 shall be applicable to the position light system as a whole. The position light system shall include the items specified in paragraphs (b) through (g) of this section.

(b) *Forward position lights.* Forward position lights shall consist of a red and a green light spaced laterally as far apart as practicable and installed forward on the rotorcraft in such a location that, with the rotorcraft in normal flying position, the red light is displayed on the left side and the green light is displayed on the right side. The individual lights shall be of an approved type.

(c) *Rear position lights.* Rear position lights shall consist of a red and a white light mounted on the rotorcraft as far aft as practicable and located in close proximity to each other. Individual lights shall be of an approved type.

(d) *Fuselage lights.* Fuselage lights shall consist of two white lights installed approximately in the same vertical plane as the forward position lights. One of these lights shall be mounted on the top of the fuselage, the other on the bottom. The individual lights shall be of an approved type.

(e) *Flasher.* A position light flasher of an approved type shall be installed and shall comply with subparagraphs (1) through (3) of this paragraph.

(1) The flashing frequency shall not be less than 65 and not more than 85 flashes per minute.

(2) The sequence of position lights shall conform to either one of the following:

(i) The forward position lights and fuselage lights flashing simultaneously at the rate specified in subparagraph (1) of this paragraph, with the rear red position light flashing simultaneously with one flash of the forward position and fuselage lights and the rear white position light flashing simultaneously with the next flash of the forward position and fuselage lights, or

(ii) The forward position lights and fuselage lights flashing alternatively at the rate specified in subparagraph (1) of this paragraph, with the rear white light flashing simultaneously with the forward position lights and the rear red light flashing simultaneously with the fuselage lights.

(3) A switch shall be provided in the system to disconnect the flasher from the circuit so that continuous light can be supplied by the forward position lights and the white rear position light with the remaining lights unenergized.

(f) *Light covers and color filters.* Light covers or color filters used shall be of flame resistant material and shall be constructed so that they will not change color or shape or suffer any appreciable loss of light transmission during normal use.

§ 7.633 Same as corresponding section in Part 6.

§ 7.634 *Position light distribution and intensities*—(a) *General.* The intensities prescribed in this section are those to be provided by new equipment with all light covers and color filters in place. Intensities shall be determined with the light source operating at a steady value equal to the average luminous output of the light source at the normal operating voltage of the rotorcraft. The light distribution and intensities of position lights shall comply with the provisions of paragraphs (b) and (c) of this section.

(b) *Forward and rear position lights.* The light distribution and intensities of forward and rear position lights shall be expressed in terms of minimum intensities in the horizontal plane, minimum intensities in any vertical plane, and maximum intensities in overlapping beams, within dihedral angles L, R, and A, and shall comply with the provisions of subparagraphs (1) through (3) of this paragraph.

(1) *Intensities in horizontal plane.* The intensities in the horizontal plane shall not be less than the values given in Figure A. (The horizontal plane is the plane containing the logitudinal axis of the rotocraft and is perpendicular to the plane of symmetry of the rotorcraft.)

(2) *Intensities above and below horizontal.* The intensities in any vertical plane shall not be less than the appropriate value given in Figure B, where I is the minimum intensity prescribed in Figure A for the corresponding angles in the horizontal plane. (Vertical planes are planes perpendicular to the horizontal plane.)

(3) *Overlaps between adjacent signals.* The intensities in overlaps between adjacent signals shall not exceed the values given in Figure C, except that higher intensities in the overlaps shall be acceptable with the use of main beam intensities substantially greater than the minima specified in Figures A and B if the overlap intensities in relation to the main beam intensities are such as not to affect adversely signal clarity.

(c) *Fuselage lights.* The illuminating intensity of the top and the bottom fuselage lights individually shall be equivalent to that which would be furnished by a 32-candlepower lamp installed in a reflector of high reflective properties. The lights shall have a clear cover and the light distribution shall be reasonably uniform throughout approximately a hemisphere.

Figure A

Minimum Intensities in the Horizontal Plane of Forward and Rear Position Lights

(See Figure 4b–18)

Figure B

Minimum Intensities in Any Vertical Plane of Forward and Rear Position Lights

(See Figure 4b–19)

Figure C

Maximum Intensities in Overlapping Beams of Forward and Rear Position Lights

(See Figure 4b–20 but add the following note:)

NOTE: Area A includes all directions in the adjacent dihedral angle which pass through the light source and which intersect the common boundary plane at more than 10 degrees but less than 20 degrees. Area B includes all directions in the adjacent dihedral angle which pass through the light source and which intersect the common boundary plane at more than 20 degrees.

§§ 7.635 and 7.636 Same as corresponding sections in Part 6.

§ 7.637 *Anti-collision light.* In addition to the position light system prescribed in §§ 7.632 through 7.635, an approved anti-collision light shall be installed.

SAFETY EQUIPMENT

§§ 7.640 through 7.642 Same as corresponding sections in Part 6.

§ 7.643 *Safety belts.* Safety belts shall be of an approved type (see § 7.355 (c) (2)). When means are provided to indicate to the passengers when seat belts should be fastened, the device shall be so installed that it can be operated from the seat of either the pilot or co-pilot.

§ 7.644 *Emergency flotation and signaling equipment.* When emergency flotation and signaling equipment is required by the operating rules of the Civil Air Regulations, such equipment shall comply with the provisions of paragraphs (a) through (d) of this section.

(a) *Life rafts.* Life rafts shall be of an approved type. Unless excess rafts of sufficient capacity are provided, the buoyancy and seating capacity beyond the rated capacity of the rafts shall be such as to accommodate all occupants of the rotorcraft in the event of a loss of one life raft of the largest rated capacity on board. Each life raft shall be equipped with a trailing line and with a static line, the latter designed to hold the raft near the rotorcraft but to release it in case the rotorcraft becomes totally submerged. Each raft shall contain obvious markings of instruction on its operation.

(b) *Life raft equipment.* Approved equipment intended for survival shall be attached to each life raft and marked for identification and method of operation.

NOTE: The extent and type of survival equipment will depend upon the route over which the rotorcraft is operated.

(c) *Long-range signaling device.* An approved long-range signaling device shall be provided for use in one of the life rafts.

(d) *Life preservers.* Life preservers shall be of an approved type. They shall be reversible and shall contain obvious markings of instruction on their use.

§ 7.645 *Stowage of safety equipment.* Special stowage provisions shall be made for all prescribed safety equipment to be used in emergencies. The stowage provisions shall be such that the equipment is directly accessible and its location is obvious. All safety equipment shall be protected against inadvertent damage. The stowage provisions shall be marked conspicuously to identify the contents and to facilitate removal of the equipment. In addition, the following shall specifically apply:

(a) *Emergency exit means.* The stowage provisions for the emergency exit descent device required by § 7.357 (d) (6) shall be located at the exits which they are intended to serve.

(b) *Life rafts.* Life rafts shall be stowed near exits through which the rafts can be launched during an unplanned ditching. Rafts automatically or remotely released on the outside of the rotorcraft shall be attached to the rotorcraft by means of the static line prescribed in § 7.644 (a).

(c) *Long-range signaling device.* The stowage provisions for the long-range signaling device required by § 7.644 (c) shall be located near an exit to be available during an unplanned ditching.

(d) *Life preservers.* Life preservers shall be so located that they are within easy reach of each occupant while seated.

§ 7.646 *Oxygen equipment and supply*—(a) *Protective breathing system.* When protective breathing equipment is required by the operating rules of the Civil Air Regulations, it shall be designed to protect the flight crew from the effects of smoke, carbon dioxide, and other harmful gases while on flight deck duty. The protective breathing equipment and the necessary supply of oxygen shall be in accordance with the following provisions:

(1) The protective breathing equipment shall include masks covering the eyes, nose, and mouth, or only the nose and mouth where accessory equipment is provided to protect the eyes.

(2) A supply of protective oxygen per crew member shall be of 10-minute duration at a pressure altitude of 8,000 feet and a respiratory minute volume of 30 liters per minute BTPD.

NOTE: When a demand type oxygen system is employed, a supply per crew member of 200 liters of free oxygen at 70° F. and 760 mm Hg. pressure is considered to be of 10-minute duration at the prescribed altitude and minute volume. BTPD refers to body temperature conditions, i. e., 37° F. at ambient pressure, dry.

MISCELLANEOUS EQUIPMENT

§ 7.650 *Hydraulic systems; strength*—(a) *Structural loads.* All elements of the hydraulic system shall be designed to withstand, without detrimental permanent deformation, all structural loads which may be imposed simultaneously with the maximum hydraulic loads occurring in operation.

(b) *Proof pressure tests.* All elements of the hydraulic system shall be tested to a proof pressure of 1.5 times the maximum pressure to which the part will be subjected in normal operation. In such test, no part of the hydraulic system shall fail, malfunction, or suffer detrimental deformation.

(c) *Burst pressure strength.* Individual hydraulic system elements shall be designed to withstand pressures which are sufficiently increased over the pressures prescribed in paragraph (b) of this section to safeguard against rupture under service conditions.

NOTE: The following pressures, in terms of percentage of maximum operating pressure for the particular element, in most instances are sufficient to insure against rupture in service: 250 percent in units under oil pressure, 400 percent in units containing air and oil under pressure and in lines, hoses, and fittings, 300 percent in units of system subjected to back pressure.

§ 7.651 *Hydraulic systems; design.* The provisions of § 7.606 shall apply to hydraulic systems and equipment.

(a) *Pressure indication.* A means shall be provided to indicate the pressure in each main hydraulic power system.

(b) *Pressure limiting provisions.* Provision shall be made to assure that pressures in any part of the system will not exceed a safe limit above the maximum operating pressure of the system and to insure against excessive pressures resulting from fluid volumetric changes in all lines which are likely to remain closed long enough for such changes to take place. In addition, consideration shall be given to the possible occurrence of detrimental transient (surge) pressures during operation.

(c) *Installation.* Hydraulic lines, fittings, and components shall be installed and supported to prevent excessive vibration and to withstand inertia loads. All elements of the installation shall be protected from abrasion, corrosion, and mechanical damage.

(d) *Connections.* Flexible hose, or other means of providing flexibility, shall be used to connect points in a hydraulic fluid line between which there is relative motion or differential vibration.

§ 7.652 *Hydraulic system fire protection.* When flammable type hydraulic fluid is used, the hydraulic system shall comply with the provisions of §§ 7.384 and 7.481 through 7.483.

§ 7.653 *Radio installation.* (a) Radio communication and navigation equipment installations in the rotorcraft should be free from hazards in themselves, in their method of operation, and in their effects on other components of the rotorcraft. In showing compliance with this requirement, consideration shall be given to critical environmental conditions.

NOTE: Critical environmental conditions may include temperature, pressure, humidity, ventilation, position, acceleration, vibration, and presence of detrimental substances.

(b) All radio communication and navigation equipment, controls and wiring shall be so installed that operation of any one unit or system of units will not affect adversely the simultaneous operation of any other radio or electronic unit or system of units required by the Civil Air Regulations.

§ 7.654 *Vacuum systems.* (a) Means, in addition to the normal pressure relief, shall be provided to relieve automatically the pressure in the discharge lines from the vacuum air pump if the delivery temperature of the air reaches an unsafe value.

(b) Vacuum air system lines and fittings on the discharge side of the pump which might contain flammable vapors or fluids shall comply with § 7.483 if they are located in a designated fire zone. Other vacuum air system components located in designated fire zones shall be fire resistant.

SUBPART G—OPERATING LIMITATIONS AND INFORMATION

GENERAL

§ 7.700 Same as corresponding section in Part 6.

OPERATING LIMITATIONS

§§ 7.710 through 7.713 Same as corresponding sections in Part 6.

§ 7.714 *Powerplant limitations.* The powerplant limitations set forth in paragraphs (a) through (c) of this section shall be established for the rotorcraft. They shall not exceed the corresponding limits established as a part of the type certification of the engine installed on the rotorcraft.

(a) *Take-off operation.* The take-off operation shall be limited by:

(1) The maximum rotational speed, which shall not be greater than the maximum value determined by the rotor design, nor greater than the maximum value demonstrated during type tests,

(2) The maximum permissible manifold pressure,

(3) The time limit for use of the power which corresponds with the values established in subparagraphs (1) and (2) of this paragraph,

(4) Where the time limit established in subparagraph (3) of this paragraph exceeds two minutes, the maximum allowable cylinder head or coolant outlet, and oil temperatures,

(5) Maximum cylinder head or coolant outlet and oil temperatures, if these differ from the maximum limits for continuous operation.

(b) *Continuous operation.* The continuous operation shall be limited by:

(1) The maximum rotational speed, which shall not be greater than the maximum value determined by the rotor design, nor greater than the maximum value demonstrated during type tests,

(2) Maximum permissible manifold pressure,

(3) Maximum allowable cylinder head or coolant outlet, and oil temperatures, and

(4) The minimum rotational speed demonstrated in compliance with the rotor speed requirements as prescribed in § 7.713 (b) (2).

(c) *Fuel octane rating.* The minimum octane rating of fuel required for satisfactory operation of the powerplant within the limitations prescribed in paragraphs (a) and (b) of this section.

(d) *Cooling limitations.* The maximum sea level temperature for which satisfactory cooling has been demonstrated.

§ 7.715 Change title from *"Limiting height for autorotative landing"* to *"Limiting height-speed envelope"*. Change references to read (see §§ 7.11 (a) (1), 7.111 (b), 7.741 (f)).

§§ 7.716 through 7.719 Same as corresponding sections in Part 6.

MARKINGS AND PLACARDS

§ 7.730 through 7.733 Same as corresponding sections in Part 6.

§ 7.734 *Powerplant instruments; general.* All required powerplant instruments shall be marked as follows:

(a) The maximum and the minimum (if applicable) safe operational limits shall be marked with red radial lines.

(b) The normal operating ranges shall be marked with a green arc not extending beyond the maximum and minimum safe operational limits.

(c) The take-off and precautionary ranges shall be marked with a yellow arc.

(d) Engine or rotor speed ranges which are restricted because of excessive vibration stresses shall be marked with red arcs.

§§ 7.735 through 7.738 Same as corresponding sections in Part 6.

ROTORCRAFT FLIGHT MANUAL

§§ 7.740 and 7.741 Same as corresponding sections in Part 6.

§ 7.742 Same as § 6.742 except add the following sentence at the end thereof: "If applicable, the procedure to be followed in the event of engine failure including minimum speeds, trim, operation of remaining engines, etc., shall be described."

§ 7.743 *Performance information (Category A)*—(a) *Performance data.* A summary of all performance data shall be given, including performance data necessary for the application of the operating rules of this subchapter, together with descriptions of the conditions, air speeds, etc., under which these data were determined.

(b) *Air speeds.* The calibrated air speeds corresponding with those determined for take-off shall be listed together with the procedures to be followed in the event the critical engine becomes inoperative during take-off (see § 7.742).

(c) *Limiting heights; complete failure of all power.* The range of heights and its variation with forward speed within which it is not possible to make a safe landing following complete power loss shall be shown (see § 7.111 (a) (2)).

(d) *Maximum allowable wind.* Information relative to the maximum allowable wind for safe operation near the ground shall be included (see § 7.121 (d)).

§ 7.743 *Performance information (Category B).* Information relative to the items of performance set forth in paragraphs (a) through (d) of this section shall be included.

(a) The take-off distance and the air speed at the 25-foot height together with any pertinent information defining the flight path with respect to the required autorotative landing in the event of an engine failure, including the calculated effect of altitude and temperature (see § 7.114).

(b) The steady rates of climb and hovering ceilings together with the corresponding air speeds and other pertinent information, including the calculated effect of altitude and temperature (see §§ 7.115 and 7.116).

(c) The landing distance and the type of landing surface together with any pertinent information which might affect this distance, including the calculated effect of altitude and temperature (see §§ 7.117 and 7.118).

(d) Maximum wind allowable for safe operation near the ground (see § 7.121 (d)).

[F. R. Doc. 55-3735; Filed, May 6, 1955; 8:50 a. m.]

[14 CFR Part 297]

[Order No. E-9179; Docket No. 7132]

INTERNATIONAL AIR FREIGHT FORWARDERS

ORDER OF INVESTIGATION

Adopted by the Civil Aeronautics Board at its office in Washington, D. C., on the 3d day of May 1955.

Part 297 of the Economic Regulations was promulgated by the Board after it found in the Air Freight Forwarder Case (International), 11 CAB 182 (1949), that the services of International Air Freight Forwarders should be authorized on a temporary basis and for a limited period during which experience could be developed upon which a permanent policy might be soundly determined. The trial period envisaged for such forwarders in the Air Freight Forwarder Case (International) is now drawing to a close since Part 297 of the Economic Regulations, and consequently the present authority of the International Air Freight Forwarders to operate, expires August 24, 1955.[1] This requires a thorough inquiry at this time into all matters relating to or affecting the services of indirect air carriers of property in overseas and foreign air transportation and an analysis of the record of forwarder experience under Part 297 with a view to determining a sound regulatory policy for the future with respect thereto.

The Board has concluded that it is not in the public interest to enforce against International Air Freight Forwarders section 401 of the Act which requires the issuance of certificates of public convenience and necessity after notice and hearing. The system of certificates of public convenience and necessity envisaged in the act for the regulation of direct air carriers becomes unnecessarily restrictive and burdensome when applied to indirect air carriers. Accordingly, the Board wishes to announce that while no party or other interested person is precluded from filing an application for a certificate of public convenience and necessity to engage indirectly in overseas and foreign air transportation of property, such authority, if any, as may be granted as a result of this proceeding will be the authority provided for under the exemption provisions of the act. In the event that the record to be made in this proceeding demonstrates that persons seeking authority to engage indirectly in overseas and foreign air transportation of property should be authorized to provide such services under certificates of public convenience and necessity, a further proceeding will be ordered to entertain and dispose of applications for such certificates.

The first formal application for a foreign air carrier permit to operate indirectly in foreign air transportation of property from the United States to a foreign country is pending before the Board in Docket No. 6523. The Board has re-

[1] The Board will shortly institute a rule making proceeding to extend the effectiveness of Part 297 until 60 days after disposition of the investigation contemplated herein.

ceived inquiries indicating a desire or intent by a substantial number of other foreign citizens to seek in the near future various indirect foreign air carrier of property authorizations. As a consequence, certain questions relating to its assertion of jurisdiction over the conduct of indirect air transportation of property by foreign citizens between the United States and foreign countries have assumed a practical significance. Since the Board does not possess the power to exempt or similarly relieve foreign air carriers from any of the economic provisions of the act as is the case with the United States air carriers, the Board may only authorize the conduct of such operations by foreign citizens through the issuance of a permit after hearing and presidential approval, as is provided in sections 402 and 801 of the act. However, as would be the case if the Board were to enforce the certificate requirements of section 401 of the act with respect to U. S. indirect air carriers, the enforcement of a system of foreign air carrier permits envisaged by the act for the regulation of direct foreign air carriers might become unnecessarily unwieldy and burdensome when applied to indirect foreign air carriers. The Board is therefore faced with the problem of balancing the detriments to U. S. indirect air carriers, U. S. direct air carriers and the public interest in general that might result if the Board does not regulate the conduct of indirect foreign air transportation of property by foreign citizens, against considerations of international comity, the difficulties of enforcing such requirements effectively and equitably, and the burdens to such foreign citizens and the Board which might result if the Board exercised jurisdiction thereover.

Many of the foreign citizens who contemplate the making of applications with the Board for foreign indirect air carrier permits appear to be engaged in foreign air transportation only to the extent of consolidating cargo in foreign countries for air shipment into the United States. It appears to the Board at this time that it would be unduly burdensome for such persons to comply with the hearing and other requirements of sections 402 and 801 of the act. If it became necessary to hold hearings outside the United States, it would impose upon the Board an exceedingly burdensome administrative problem. Also, the Board is not aware of any regulation by a foreign country of the air freight forwarding operations to such country by U. S. indirect air carriers and is therefore reluctant to take any action which might disturb the status quo in this respect unless and until it receives evidence to support a different policy. Moreover, no compelling facts have been presented to the Board by U. S. indirect air carriers or other persons which would establish that there are considerations in the public interest offsetting these circumstances so as to warrant our enforcing section 402 of the act against such foreign indirect air carriers at this time. Accordingly, the Board concludes that it is not in the public interest at this time for it to seek to exercise its jurisdiction under section 402 with respect to the authorization of foreign air carriers engaging indirectly in foreign air transportation of property solely from foreign countries to the United States.

Foreign citizens who are engaged within the United States in the business of solicitation and consolidation of air freight for shipment indirectly in foreign air transportation from the United States do not appear to pose substantial administrative or geographic problems such as are characteristic of those foreign indirect air carriers operating from foreign countries to the United States. Also, it is apparent that the conduct of forwarding operations from points in the United States constitutes an activity in which citizens of the United States engage to a substantial degree and which should be granted to foreign citizens only if they meet the requirements of section 402 of the act as to their individual fitness, willingness and ability to perform properly such air transportation and to conform to the provisions of the act and the rules, regulations and requirements thereunder and make the prerequisite showing that the transportation which each proposes will be in the public interest. Accordingly, we will continue to process applications and otherwise enforce the requirements of section 402 of the act with respect to such foreign indirect air carriers.

Our decision herein respecting the exercise of our jurisdiction over foreign indirect air carriers is a matter which may have an important effect upon the operations of U. S. International Air Freight Forwarders and direct air carriers. In the light of that decision, whether we should accord U. S. International Air Freight Forwarders any relief from restrictions heretofore applicable to them or otherwise take such decision into account should be investigated herein with a view to giving all persons interested an opportunity to be heard. Moreover, we should point out that our decision not to exercise jurisdiction at this time over indirect foreign air carriers will be subject to reexamination should the record in this proceeding indicate that such action is desirable.

Inasmuch as the renewal of the authority of every holder of a Letter of Registration under Part 297 will be in issue in this proceeding, we are making each such holder, and every applicant for such a letter, as of the date of the prehearing conference herein, a party to this proceeding. These persons need not file applications for renewal of their respective authorizations but will automatically be considered as applicants for authority as an air carrier to engage indirectly in overseas and foreign air transportation of property if they make a due showing respecting those matters in issue herein, and file an appropriate application covering relationships or changes in relationships not heretofore approved by the Board and within the purview of sections 408 and/or 409 of the act.

In order that we may have a complete record of all types of indirect air carriers, we are including Railway Express Agency, Inc. (REA) within the scope of this proceeding. This is not to be taken as an indication that we may not continue the present exemption under section 1 (2) of the act authorizing REA to engage as an indirect carrier in the transportation of property by air.

The Board, acting pursuant to sections 1 (2), 205 (a), 416 (a) and 1002 (b) of the Civil Aeronautics Act of 1938, as amended, and deeming its action necessary to carry out the provisions of said act, and to exercise and perform its powers and duties thereunder: *It is ordered,* That:

1. An investigation be and hereby is instituted by the Board into all matters relating to and concerning services of air carriers indirectly engaged in overseas and/or foreign air transportation of property. Such investigation shall include, inter alia, an inquiry into the following matters:

(a) The question of whether the public interest requires the renewal and/or amendment of Part 297 of the Economic Regulations;

(b) The extent to which there is or may be a general need for indirect air carrier services;

(c) The extent to which there is a need for the classification of indirect air carriers engaging in overseas and foreign air transportation of property, and the extent to which there is a need for subclassifications by areas of operation, or otherwise, within such possible indirect air carrier classifications e. g. air freight forwarders using direct air carriers; air freight forwarders using indirect air carriers; shippers' associations; air express forwarders, and other similar indirect air carrier services;

(d) The extent to which existing requirements of law should be modified in their application to such classifications;

(e) The types of operation best adapted to performance of the services required to meet such need;

(f) The extent to which other activities may be engaged in by such indirect air carriers to meet such need;

(g) The extent to which indirect air carrier operations should be subjected to restrictions to prevent discriminatory and destructive practices and the nature of any such restrictions;

(h) The extent to which the services and operations of air carriers of property indirectly engaged in foreign and/or overseas air transportation of property have been, are, or could be, affected by similar or related services and operations of foreign citizens;

(i) The extent to which any interdependence that may be established as a result of the inquiry in (h) next hereinabove should affect future regulation of air carriers engaging indirectly in overseas and/or foreign air transportation of property;

2. The following be and they hereby are made parties to this proceeding: (a) Every holder of an effective Letter of Registration as an International Air Feight Forwarder as of the date of the prehearing conference herein; (b) every applicant for a Letter of Registration as an International Air Freight Forwarder as of the date of the prehearing conference herein; (c) Railway Express Agency, Inc.;

3. This proceeding be and hereby is set down for hearing before an Examiner of the Board at a time and place here-

after to be designated, at which all interested parties will be afforded an opportunity to present their views and any relevant data relating to the subject matter of this proceeding;

4. This order be published in the FEDERAL REGISTER.

By the Civil Aeronautics Board.

[SEAL] M. C. MULLIGAN,
Secretary.

[F. R. Doc. 55-3732; Filed, May 6, 1955; 8:49 a. m.]

DEPARTMENT OF LABOR

Public Contracts Division

[41 CFR Part 202]

OFFICE MACHINERY INDUSTRY

NOTICE OF SUPPLEMENTAL HEARING ON PREVAILING MINIMUM WAGES

Pursuant to the provisions of the Walsh-Healey Public Contracts Act (act of June 30, 1936, 49 Stat. 2036, 41 U. S. C. secs. 35, et seq.) a hearing was held on October 25, 1950, in Room 1214, Department of Labor, Washington, D. C., for the purpose of determining the prevailing minimum wage in the office machines industry. Subsequent thereto no proposed determination was issued.

In order to provide interested parties an opportunity for the submission of evidence with respect to changes in prevailing minimum wages which have occurred since the October 1950 hearing, the hearings herein are reopened, and notice is hereby given that a supplemental hearing will be held on May 25, 1955, beginning at 10:00 a. m. in Room 5406, Department of Labor Building, Fourteenth and Constitution Avenue NW., Washington, D. C., at which hearing all interested parties may appear and submit data, views and argument (1) as to the propriety of the proposed definition of the industry; (2) as to what are the prevailing wages in the industry; (3) as to what changes in prevailing minimum wages in the industry have occurred since the October 1950 hearing; (4) as to whether there should be included in any determination for this industry provision for the employment of learners, beginners, or apprentices at subminimum rates and on what terms or limitations, if any, such employment should be permitted; (5) as to whether a single determination for all of the area in which the industry operates or a separate determination for each of several different geographic areas (including the appropriate limits of such areas) should be determined for this hearing.

Persons intending to appear are requested to notify the Office of the Administrator, Wage and Hour and Public Contracts Divisions, of their intention in advance of the hearing.

Written statements of position or argument may be filed with the Office of the Administrator at any time prior to the date of the hearing by persons who cannot appear personally. An original and three copies of any such statement shall be filed and shall include the reason or reasons for non-appearance. Such statements as contain factual matter shall be sworn to and will be offered in evidence at the hearing. If objection is made to any such offer, the statement will be received in evidence subject to the objection which will be considered to affect the weight rather than the admissibility of the statement.

The following information is particularly invited with respect to the subject matter of the testimony or statements of each witness: (1) The identity of any products not now included in the definition of the industry which should be included and of any products now included which should not be included; (2) the number of workers covered in the presentation; (3) the number and location of establishments in the industry; (4) the minimum job rates paid and the number of workers receiving such wages and the occupations in which they are employed; (5) the minimum wages paid to apprentices, learners or beginners; the scale of wages paid during the apprenticeship, learning or probationary period; the length of such periods; the number of workers receiving such wages and the occupations in which they are employed; and (6) the extent to which there is competition in this industry between plants in different geographical areas.

To the extent possible, data should be submitted in such a manner as to permit evaluation thereof on a plant by plant basis.

This hearing shall be conducted pursuant to the rules of practice set forth in Part 203, Subpart C (41 CFR Part 203).

Signed at Washington, D. C., this 5th day of May 1955.

JAMES P. MITCHELL,
Secretary of Labor.

[F. R. Doc. 55-3748; Filed, May 6, 1955; 8:50 a. m.]

Wage and Hour Division

[29 CFR Part 655]

NEEDLEWORK AND FABRICATED TEXTILE PRODUCTS INDUSTRY IN PUERTO RICO

MINIMUM WAGE RATES

On March 4, 1955, a notice of proposed decision in the above matter was published in the FEDERAL REGISTER (20 F. R. 1345). Interested parties were given 30 days from that date within which to file exceptions. Upon consideration of all of the exceptions which were duly filed within that time, in the light of the entire record, I concluded that I would be warranted in modifying the decision which was originally proposed only as to the corde and bonnaz embroidery and corde handbag division. My reasons for not modifying the decision in other respects are fully set forth in the minimum wage order [1] which is published in this issue of the FEDERAL REGISTER. I have also indicated there my general conclusion that reconsideration of the record as a whole justifies a modification as to that particular division, but because of the need for a more detailed statement in that connection than seemed appropriate for inclusion in the wage order I have set forth my decision as to that division in a document entitled "Supplement to Findings and Opinion of the Adminstrator in the Matter of the Recommendation of Special Industry Committee No. 15 for Minimum Wage Rates in the Needlework and Fabricated Textile Products Industry in Puerto Rico," a copy of which may be had upon request addressed to the Wage and Hour Division, United States Department of Labor, Washington 25, D. C.

Accordingly, notice is hereby given pursuant to the Administrative Procedure Act (60 Stat. 237; 5 U. S. C. 1001) and the rules of practice governing this proceeding, that under the authority in section 8 of the Fair Labor Standards Act of 1938 (29 U. S. C. 201 et seq.), Reorganization Plan No. 6 of 1950 (5 U. S. C. 611), General Order No. 45-A (15 F. R. 3290), and, the position of the Administrator being presently vacant, General Order No. 85 (20 F. R. 2066), I propose to approve the recommendations of the Committee for the corde and bonnaz embroidery and corde handbag division for a minimum wage rate of 51 cents an hour. I also propose to amend the wage order for the needlework and fabricated textile products industry in Puerto Rico, 29 CFR Part 655, which will be published in this issue of the FEDERAL REGISTER by changing the minimum wage specified in § 655.2 (n) to 51 cents an hour and deleting the explanatory note which appears in parentheses therein.

Within 15 days from the publication of this notice in the FEDERAL REGISTER, interested parties may submit written exceptions to the proposed action above described. Exceptions should be addressed to the Office of the Administrator of the Wage and Hour Division, United States Department of Labor, Washington 25, D. C. They should be submitted in quadruplicate, and should include supporting reasons for any exceptions.

Signed at Washington, D. C., this 5th day of May 1955.

STUART ROTHMAN,
Solicitor of Labor.

[F. R. Doc. 55-3749; Filed, May 6, 1955; 8:50 a. m.]

[1] See Title 29, Chapter V, Part 655, *supra.*

NOTICES

DEPARTMENT OF THE TREASURY

United States Coast Guard

[CGFR 55-18]

APPROVAL OF EQUIPMENT AND CHANGE IN MANUFACTURER'S ADDRESS

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), and in compliance with the authority cited with each item of equipment: *It is ordered*, That:

(a) All of the approvals listed in this document which extend approvals published in the FEDERAL REGISTER, except approvals for standard and non-standard buoyant cushions under Specifications Subparts 160.007 and 160.008, respectively, covered in paragraph (b) below, are prescribed and shall be in effect for a period of five years from the respective dates indicated at the end of each approval, unless sooner canceled or suspended by proper authority; and,

(b) All the approvals for standard and non-standard buoyant cushions under Specifications Subparts 160.007 and 160.008, respectively, listed in this document which extend approvals previously published in the FEDERAL REGISTER are prescribed and shall be in effect until October 1, 1955, from the respective dates indicated at the end of each approval, unless sooner canceled or suspended by proper authority; and,

(c) All the approvals for standard kapok buoyant cushions under Specification Subpart 160.007 and for non-standard buoyant cushions under Specification Subpart 160.008 listed in this document (which are not covered by paragraph (b) above) are prescribed and shall be in effect until October 1, 1955, from the date of publication of this document in the FEDERAL REGISTER, unless sooner canceled or suspended by proper authority; and,

(d) All the other approvals listed in this document (which are not covered by paragraphs (a) to (c), inclusive, above) are prescribed and shall be in effect for a period of five years from the date of publication of this document in the FEDERAL REGISTER, unless sooner canceled or suspended by proper authority; and,

(e) The change in address of the manufacturer of approved equipment shall be made as indicated below.

BUOYANT CUSHIONS, KAPOK, STANDARD

NOTE: Approved for use on motorboats of Classes A, 1, or 2 not carrying passengers for hire.

Approval No. 160.007/93/0, standard kapok buoyant cushion, U. S. C. G. Specification Subpart 160.007, manufactured by the Elvin Salow Co., 31–33 South Street, Boston 11, Mass., for James Bliss & Co., Inc., 342 Atlantic Avenue, Boston 10, Mass. (Extension of the approval published in FEDERAL REGISTER March 25, 1950, effective March 25, 1955.)

Approval No. 160.007/94/0, standard kapok buoyant cushion, U. S. C. G. Specification Subpart 160.007, manufactured by Chic's Manufacturing Co., Inc., 725 Asbury Avenue, Ocean City, N. J. (Extension of the approval published in FEDERAL REGISTER March 25, 1950, effective March 25, 1955.)

Approval No. 160.007/162/0, standard kapok buoyant cushion, U. S. C. G. Specification Subpart 160.007, manufactured by Atlantic-Pacific Manufacturing Corp., 124 Atlantic Avenue, Brooklyn 1, N. Y., for Revere Supply Co., Inc., 30 Front Street, New York 4, N. Y.

Approval No. 160.007/163/0, standard kapok buoyant cushion, U. S. C. G. Specification Subpart 160.007, manufactured by Georgia Tent and Awning Co., 228 Margaret Street, SE, Atlanta, Ga.

Approval No. 160.007/164/0, standard kapok buoyant cushion, U. S. C. G. Specification Subpart 160.007, manufactured by Atlantic-Pacific Manufacturing Corp., 124 Atlantic Avenue, Brooklyn 1, N. Y., for The Durkee Company, Inc., 29–30 South Street, New York 4, N. Y.

(R. S. 4405, as amended, and 4462, as amended, 46 U. S. C. 375, 416. Interpret or apply secs. 6 and 17, 54 Stat. 164, 166, as amended; 46 U. S. C. 526e, 526p; 46 CFR 160.007)

BUOYANT CUSHIONS, NON-STANDARD

NOTE: Approved for use on motorboats of Classes A, 1, or 2 not carrying passengers for hire.

Rectangular kapok buoyant cushions manufactured by the Elvin Salow Co., 31–33 South Street, Boston 11, Mass., Dwg. No. 400, dated January 2, 1950, and Specifications dated January 2, 1950, in the following sizes with the amount of kapok indicated for each size:

Approval No.	Size (inches)	Kapok (ounces)
160.008/427/0	13 x 24 x 2	28
160.008/428/0	18 x 18 x 2	30
160.008/429/0	15 x 24 x 2	32
160.008/430/0	16 x 28 x 2	40
160.008/431/0	13 x 36 x 2	42
160.008/432/0	17 x 33 x 2	50
160.008/433/0	15 x 40 x 2	54
160.008/434/0	15 x 45 x 2	60
160.008/435/0	18 x 40 x 2	64

(Extension of the approvals published in FEDERAL REGISTER March 25, 1950, effective March 25, 1955.)

Approval No. 160.008/631/0, 15" x 15" x 3" rectangular buoyant cushion, 54 oz. fibrous glass, dwg. No. 1, dated February 1, 1955, manufactured by Jenkins & Frey, 1233 Northeast First Avenue, Miami 36, Fla.

Approval No. 160.008/632/0, 17" x 18" x 3" fishing chair design buoyant cushion, 64 oz. fibrous glass, dwg. No. 2, dated February 1, 1955, manufactured by Jenkins & Frey, 1233 Northeast First Avenue, Miami 36, Fla.

Approval No. 160.008/634/0, 15" x 26" x 2" rectangular buoyant cushion, 35 oz. kapok, dwg. No. BC–1, dated February 4, 1955, manufactured by Georgia Tent and Awning Co., 228 Margaret Street SE., Atlanta, Ga.

Approval No. 160.008/635/0, 15" x 29¾" x 2" rectangular buoyant cushion, 40 oz. kapok, dwg. No. BC–2, dated February 4, 1955, manufactured by Georgia Tent and Awning Co., 228 Margaret Street SE., Atlanta, Ga.

Approval No. 160.008/636/0, 15" x 27¼" x 28¾" x 2" trapezoidal buoyant cushion, 39 oz. kapok, dwg. No. BC–2, dated February 4, 1955, manufactured by Georgia Tent and Awning Co., 228 Margaret Street SE., Atlanta, Ga.

Approval No. 160.008/637/0, 14" x 19¾" x 2" rectangular buoyant cushion, 25 oz. kapok, dwg. No. BC–3, dated February 4, 1955, manufactured by Georgia Tent and Awning Co., 228 Margaret Street SE., Atlanta, Ga.

Approval No. 160.008/638/0, 14" x 17¾" x 19¾" x 2" trapezoidal buoyant cushion, 25 oz. kapok, dwg. No. BC–3, dated February 4, 1955, manufactured by Georgia Tent and Awning Co., 228 Margaret Street SE., Atlanta, Ga.

Approval No. 160.008/639/0, 15" x 15" x 2" rectangular buoyant cushion, 20 oz. kapok, Iowa Fibre Products Inc., dwg. dated September 15, 1953, manufactured by Iowa Fibre Products Inc., 316 Court Avenue, Des Moines 9, Iowa, for Hawkeye Sporting Goods Co., Box 613, Des Moines, Iowa.

(R. S. 4405, as amended, and 4462, as amended, 46 U. S. C. 375, 416. Interpret or apply secs. 6 and 17, 54 Stat. 164, 166, as amended; 46 U. S. C. 526e, 526p; 46 CFR 160.008)

LIFEBOATS

Approval No. 160.035/230/2, 22.0' x 7.5' x 3.17' aluminum, oar-propelled lifeboat, 31-person capacity, identified by construction and arrangement dwg. No. 22–2D dated July 29, 1948, and revised February 25, 1955, manufactured by Marine Safety Equipment Corporation, Point Pleasant, N. J. (Supersedes Approval No. 160.035/230/1 published in FEDERAL REGISTER May 10, 1950.)

Approval No. 160.035/262/1, 26.0' x 8.33' x 3.54' steel, oar-propelled lifeboat, 46-person capacity, identified by construction and arrangement dwg. No. 26–6 dated February 3, 1949, and revised March 2, 1955, manufactured by Marine Safety Equipment Corp., Point Pleasant, N. J. (Supersedes Approval No. 160.035/262/0 published in FEDERAL REGISTER May 10, 1950.)

(R. S. 4405, as amended, and 4462, as amended, 46 U. S. C. 375, 416. Interpret or apply R. S. 4417a, as amended, 4426, as amended, 4481, as amended, 4488, as amended, 4491, as amended, 4492, as amended, sec. 11, 35 Stat. 428, as amended, secs. 1 and 2, 49 Stat. 1544, as amended, and sec. 3, 54 Stat. 346, as amended, P. L. 569, 83d Cong.; 46 U. S. C. 391a, 404, 474, 481, 489, 490, 396, 367, 1333; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.; 46 CFR 160.035)

BUOYANT VESTS, KAPOK OR FIBROUS GLASS, ADULT AND CHILD, MODELS AK, CKM, CKS, AF, CFM, AND CFS

NOTE: Approved for use on motorboats of Classes A, 1, or 2 not carrying passengers for hire.

Approval No. 160.047/23/0, Model CKS, child kapok buoyant vest, U. S. C. G. Specification Subpart 160.047,

manufactured by The Safegard Corp., Box 66, Station B, Cincinnati, Ohio.

Approval No. 160.047/24/0, Model AK, adult kapok buoyant vest, U. S. C. G. Specification Subpart 160.047, manufactured by Iowa Fibre Products Inc., 316 Court Avenue, Des Moines 9, Iowa, for Hawkeye Sporting Goods Co., P. O. Box 613, Des Moines, Iowa.

Approval No. 160.047/25/0, Model AK, adult kapok buoyant vest, U. S. C. G. Specification Subpart 160.047, manufactured by Iowa Fibre Products Inc., 316 Court Avenue, Des Moines 9, Iowa.

Approval No. 160.047/29/0, Model CKM, child kapok buoyant vest, U. S. C. G. Specification Subpart 160.047, manufactured by The American Pad & Textile Co., Greenfield, Ohio, for Montgomery Ward & Co., Inc., 619 West Chicago Avenue, Chicago 7, Ill.

Approval No. 160.047/30/0, Model CKS, child kapok buoyant vest, U. S. C. G. Specification Subpart 160.047, manufactured by The American Pad & Textile Co., Greenfield, Ohio, for Montgomery Ward & Co., Inc., 619 West Chicago Avenue, Chicago 7, Ill.

(R. S. 4405, as amended, 4462, as amended; 46 U. S. C. 375, 416. Interpret or apply secs. 6, 17, 54 Stat. 164, 166, as amended; 46 U. S. C. 526e, 526p; 46 CFR 160.047)

BUOYANT CUSHIONS, KAPOK OF FIBROUS GLASS

NOTE: Approved for use on motorboats of Classes A, 1, or 2 not carrying passengers for hire.

Approval No. 160.048/3/0, group approval for rectangular and trapezoidal kapok buoyant cushions, U. S. C. G. Specification Subpart 160.048, sizes and weights of kapok filling to be as per Table 160.048–4 (c) (1) (i), manufactured by The American Pad & Textile Co., Greenfield, Ohio.

Approval No. 160.048/4/0, group approval for rectangular and trapezoidal fibrous glass buoyant cushions, U. S. C. G. Specification Subpart 160.048, sizes and weights of fibrous glass filling to be as per Table 160.048–4 (c) (1) (ii), manufactured by The American Pad & Textile Co., Greenfield, Ohio.

Approval No. 160.048/5/0, special approval for 14" x 17" x 2" rectangular ribbed-type kapok buoyant cushion, 21 oz. kapok dwg. Nos. A–16 and B–245, dated February 15, 1955, manufactured by The American Pad & Textile Co., Greenfield, Ohio.

Approval No. 160.048/6/0, special approval for 14" x 19" x 2" rectangular ribbed-type kapok buoyant cushion, 24 oz. kapok, dwg. Nos. A–15 and B–245, dated February 15, 1955, manufactured by The American Pad & Textile Co., Greenfield, Ohio.

(R. S. 4405, as amended, 4462, as amended; 46 U. S. C. 375, 416. Interpret or apply secs. 6, 17, 54 Stat. 164, 166, as amended; 46 U. S. C. 526e, 526p, 46 CFR 160.048)

BUOYANT CUSHIONS, UNICELLULAR PLASTIC FOAM

NOTE: Approved for use on motorboats of Classes A, 1, or 2 not carrying pasengers for hire.

Approval No. 160.049/2/0, group approval for rectangular and trapezoidal unicellular plastic foam buoyant cushions, U. S. C. G. Specification Subpart 160.049, sizes to be as per Table 160.049–4 (c) (1), manufactured by The American Pad & Textile Co., Greenfield, Ohio.

(R. S. 4405, as amended, 4462, as amended; 46 U. S. C. 375, 416. Interpret or apply secs. 6, 17, 54 Stat. 164, 166, as amended; 46 U. S. C. 526e, 526p; 46 CFR 160.049)

TELEPHONE SYSTEMS, SOUND POWERED

Approval No. 160.005/12/1, Sound powered telephone station, selection ringing, common talking, 19 station maximum, bulkhead mounting, splashproof, with internal hand generator bell, dwg. No. 1, Alt. 3, Type A, Model W, manufactured by Hose-McCann Telephone Co., Inc., 25th Street and 3d Avenue., Brooklyn 32, N. Y. (Extension of the approval published in FEDERAL REGISTER March 25, 1950, effective March 25, 1955.)

(R. S. 4405, 4417a, 4418, 4426, 4491, 49 Stat. 1544, and 54 Stat. 346, as amended; P. L. 569, 83d Cong.; 46 U. S. C. 367, 375, 391a, 392, 404, 489, 1333; 46 CFR 113.30–25 (a))

BOILERS, HEATING

Approval No. 162.003/161/0, Model 4L, 517 lbs/hr. steel plate steam heating boiler, boiler subassembly dwg. No. 799002009, Rev. A dated February 14, 1955, dimensional data sheet dwg. No. 722203848 dated January 12, 1955, maximum design pressure 30 p. s. i. approval limited to bare boiler, manufactured by Orr & Sembower, Inc., Reading, Pa.

Approval No. 162.003/162/0, Model No. 16 cast iron hot water heating boiler, dwg. No. 122054A, maximum pressure 15 p. s. i., approval limited to bare boiler, manufactured by Elisha Webb & Son Co., 136 South Front Street, Philadelphia 6, Pa.

Approval No. 162.003/163/0, Model No. 350A cast iron hot water heating boiler, dwg. No. 122154A, maximum pressure 15 p. s. i., approval limited to bare boiler, manufactured by Elisha Webb & Son Co., 136 South Front Street, Philadelphia 6, Pa.

(R. S. 4405, 4417a, 4418, 4426, 4433, 4434, 4491, as amended, secs. 1, and 2, 49 Stat. 1544, and sec. 3, 54 Stat. 346, as amended, P. L. 569, 83d Cong.; 46 U. S. C. 367, 375, 391a, 392, 404, 411, 412, 489, 1333, 46 CFR Part 52)

VALVES, PRESSURE-VACUUM RELIEF AND SPILL

Approval No. 162.017/79/0, Figure No. CG–AL–120, pressure only relief and spill valve, atmospheric pattern, weight-loaded poppets, aluminum alloy body and stainless steel poppets and fittings, dwg. No. CG–AL–120, dated Mar. 2, 1955, approved for sizes 3", 4", 6" and 8", manufactured by the Mechanical Marine Co., Inc., 17 Battery Place, New York 4, N. Y.

Approval No. 162.017/80/0, Figure No. CG–AL–130, pressure-vacuum relief valve, enclosed pattern, weight-loaded poppets, aluminum alloy body and stainless steel poppets and fittings, dwg. No. CG–AL–130, dated Mar. 2, 1955, approved for sizes 3", 4", 5" and 6", manufactured by the Mechanical Marine Co., Inc., 17 Battery Place, New York 4, N. Y.

(R. S. 4405, as amended, and 4462, as amended, 46 U. S. C. 375, 416. Interpret or apply R. S. 4417a, as amended, and 4491, as amended; P. L. 569, 83d Cong.; 46 U. S. C. 391a, 489; E. O. 10402, 17 F. R. 9917, 3 CFR, 1952 Supp.; 46 CFR 162.017)

APPLIANCES, LIQUEFIED PETROLEUM GAS CONSUMING

Approval No. 162.020/28/2, Magic Chef Model No. GC–10 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–5.901 and Supplement Serial No. 13, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo. (Supersedes approval No. 162.020/28/1, published in the FEDERAL REGISTER December 7, 1951.)

Approval No. 162.020/29/2, Magic Chef Model No. GC–11 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–5.901 and Supplement Serial No. 13, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo. (Supersedes Approval No. 162.020/29/1, published in the FEDERAL REGISTER December 7, 1951.)

Approval No. 162.020/30/2, Magic Chef Model No. GC–16 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–5.901 and Supplement Serial No. 13, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo. (Supersedes Approval No. 162.020/30/1, published in the FEDERAL REGISTER December 7, 1951.)

Approval No. 162.020/42/2, Magic Chef Model No. GC–12 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–9.901 and Supplement Serial No. 7, manufactured by Magic Chef, Inc., 4931 Dagget Avenue, St. Louis 10, Mo. (Supersedes Approval No. 162.020/42/1, published in the FEDERAL REGISTER December 7, 1951.)

Approval No. 162.020/43/2, Magic Chef Model No. GC–14 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–5.901 and Supplement Serial No. 13, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo. (Supersedes Approval No. 162.020/43/1, published in the FEDERAL REGISTER December 7, 1951.)

Approval No. 162.020/44/2, Magic Chef Model No. GC–15 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–9.901 and Supplement Serial No. 7, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo. (Supersedes Approval No. 162.020/44/1, published in the FEDERAL REGISTER December 7, 1951.)

Approval No. 162.020/46/1, Magic Chef Model No. GC–17 roast oven for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–28.901 and Supplement Serial No. 3, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo. (Supersedes Approval No. 162.020/46/0, published in the FEDERAL REGISTER June 26, 1951.)

Approval No. 162.020/91/0, Magic Chef Model GR–28 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 1–689–3.801, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo.

Approval No. 162.020/92/0, Magic Chef Model No. GC–29A deep fat fryer for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 13–(18–1.0 and –1.1) .001, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo.

Approval No. 162.020/93/0, Magic Chef Model No. GC–29–AS deep fat fryer for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 13–(18–1.0 and –1.1) .001, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo.

Approval No. 162.020/94/0, Magic Chef Model No. GC–26 range for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 11–22–5.901 and Supplement Serial Nos. 12 and 13, manufactured by Magic Chef, Inc., 4931 Daggett Avenue, St. Louis 10, Mo.

(R. S. 4405, 4417a, 4426, 4491, secs. 1, 2, 49 Stat. 1544, and sec. 2, 54 Stat. 1028, as amended; P. L. 569, 83d Cong.; 46 U. S. C. 367, 375, 391a, 404, 463a, 489, 1333; 46 CFR 55.16–10)

FIRE INDICATING AND ALARM SYSTEMS

"Detect-A-Fire," Type 7020–2, Fire Alarm Thermostat, having temperature ratings of 140° F., 160° F. and 225° F., for use with approved closed-circuit type Fire Indicating and Alarm Systems. Approved as affording protection of an area where no point on the overhead is more than 17.5 feet from the thermostat except that, where beams or girders of over 12 inches in depth are employed, the overhead on each side of the beam or girder shall be considered as separate areas for the purpose of this spacing limitation; the space limitation appearing on the drawing shall be disregarded for the purpose of this approval. Identified by drawing No. 27020–2, Revision GC, dated July 6, 1954, manufactured by Fenwal, Inc., Ashland, Mass. (Supersedes approval published in FEDERAL REGISTER December 7, 1951.)

"Detect-A-Fire," Type 7021–2, Fire Alarm Thermostat, having temperature ratings of 140° F., 160° F. and 225° F., for use with approved open-circuit type Fire Indicating and Alarm Systems. Approved as affording protection of an area where no point on the overhead is more than 17.5 feet from the thermostat except that, where beams or girders of over 12 inches in depth are employed, the overhead on each side of the beam or girder shall be considered as separate areas for the purpose of this spacing limitation; the space limitation appearing on the drawing shall be disregarded for the purpose of this approval. Identified by drawing No. 27021–2, Revision GC, dated July 6, 1954, manufactured by Fenwal, Inc., Ashland, Mass. (Supersedes approval published in FEDERAL REGISTER December 7, 1951.)

(R. S. 4405, and 4426, as amended, 49 Stat. 1544, 54 Stat. 346, 1028, as amended, P. L. 569, 83d Cong.; 46 U. S. C. 375, 404, 367, 1333, 463a; 46 CFR 76.05, and 95.05)

CHANGE IN MANUFACTURER'S ADDRESS

The address of The American Pad & Textile Co. has been changed from New Orleans, La., to New Orleans, La., and Fairfield, Calif., for Approval Nos. 160.004/3/0 and 160.004/4/0 previously published in the FEDERAL REGISTER for Models 42 and 46, adult and child, balsa wood life preservers.

Dated: May 3, 1955.

[SEAL] A. C. RICHMOND,
Vice Admiral, U. S. Coast Guard, Commandant.

[F. R. Doc. 55–3727; Filed, May 6, 1955; 8:49 a. m.]

[CGFR 55–19]

TERMINATIONS OF APPROVALS OF EQUIPMENT

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), and in compliance with the authorities cited below, the following approvals of equipment are terminated because (1) the manufacturer is no longer in business; or (2) the manufacturer does not desire to retain the approval; or (3) the item is no longer being manufactured; or (4) the item of equipment no longer complies with present Coast Guard requirements; or (5) the approval has expired. Except for those approvals which have expired, all other terminations of approvals made by this document shall be made effective upon the thirty-first day after the date of publication of this document in the FEDERAL REGISTER. Notwithstanding this termination of approval of any item of equipment as listed in this document, such equipment in service may be continued in use so long as such equipment is in good and serviceable condition.

BUOYANT CUSHIONS, NON-STANDARD

Termination of Approval No. 160.008/591/0, 15" x 15" x 2" rectangular buoyant cushion, 20 oz. kapok, dwg. dated September 15, 1953, manufactured by Iowa Fibre Products Inc., 316 Court Avenue, Des Moines 9, Iowa. (Approved FEDERAL REGISTER December 15, 1953.)

(R. S. 4405, as amended, and 4462, as amended, 46 U. S. C. 375, 416. Interpret or apply secs. 6 and 17, 54 Stat. 164, 166, as amended; 46 U. S. C. 526e, 526p; 46 CFR 160.008)

BOILERS, HEATING

Termination of Approval No. 162.003/109/0, Model 526 "C", bare fire tube heating boiler, welded steel plate construction, 30 pounds per square inch maximum pressure, dwg. No. 38–8817, dated January 17, 1950, manufactured by The International Boiler Works Co., East Stroudsburg, Pa. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

(R. S. 4405, 4417a, 4418, 4426, 4433, 4434, 4491, as amended, secs. 1, and 2, 49 Stat. 1544, and sec. 3, 54 Stat. 346, as amended, P. L. 569, 83d Cong.; 46 U. S. C. 367, 375, 391a, 392, 404, 411, 412, 489, 1333; 46 CFR Part 52)

APPLIANCES, LIQUEFIED PETROLEUM GAS CONSUMING

Termination of Approval No. 162.020/20/0, South Bend gas range, Model No. 1000–L, approved by the American Gas Association, Inc., under certificate No. 11–(44.0, –4.0 and –6.01).001, for liquefied petroleum gas service, manufactured by the Malleable Steel Range Manufacturing Co., South Bend 21, Ind. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

Termination of Approval No. 162.020/21/0, South Bend gas range, Model No. 1002–L, approved by the American Gas Association, Inc., under Certificate No. 11–44–6.011, for liquefied petroleum gas service, manufactured by the Malleable Steel Range Manufacturing Co., South Bend 21, Ind. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

Termination of Approval No. 162.020/22/0, South Bend gas range, Model No. 1003–L, approved by the American Gas Association, Inc., under Certificate No. 11–(44.0, –4.0 and –6.01).001, for liquefied petroleum gas service, manufactured by the Malleable Steel Range Manufacturing Co., South Bend 21, Ind. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

Termination of Approval No. 162.020/23/0, South Bend gas range, Model No. 1020–L, approved by the American Gas Association, Inc., under Certificate No. 11–(44.0, –4.0 and –6.01).001, for liquefied petroleum gas service, manufactured by the Malleable Steel Range Manufacturing Co., South Bend 21, Ind. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

Termination of Approval No. 162.020/24/0, South Bend gas range, Model No. 1022–L, approved by the American Gas Association, Inc., under Certificate No. 11–44–6.011, for liquefied petroleum gas service, manufactured by the Malleable Steel Range Manufacturing Co., South Bend 21, Ind. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

Termination of Approval No. 162.020/25/0, South Bend gas range, Model No. 1023–L, approved by the American Gas Association, Inc., under Certificate No. 11–(44.0, –4.0 and –6.01) .001, for liquefied petroleum gas service, manufactured by the Malleable Steel Range Manufacturing Co., South Bend 21, Ind. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

Termination of Approval No. 162.020/26/0, South Bend gas range, Model No. 1025–L, approved by the American Gas Association, Inc., under Certificate No. 11–(44.0, –4.0 and –6.01) .001, for liquefied petroleum gas service, manufactured by the Malleable Steel Range Manufacturing Co., South Bend 21, Ind. (Approved FEDERAL REGISTER March 25, 1950. Termination of approval effective March 25, 1955.)

Termination of Approval No. 162.020/47/0, Magic Chef Model No. HD–18 deep fat fryer for liquefied petroleum gas service, approved by the American Gas Association, Inc., under Certificate No. 13–9–1.011 and Supplement Serial No. 3, manufactured by Magic Chef, Inc., 4931 Daggett Ave., St. Louis 10, Mo. (Approved FEDERAL REGISTER June 26, 1951.)

(R. S. 4405, 4417a, 4426, 4491, secs. 1, 2, 49 Stat. 1544, and sec. 2, 54 Stat. 1028, as amended, P. L. 569, 83d Cong.; 46 U. S. C. 367, 375, 391a, 404, 463a, 489, 1333; 46 CFR 55.16–10)

Dated: May 3, 1955.

[SEAL] A. C. RICHMOND,
Vice Admiral, U. S. Coast Guard, Commandant.

[F. R. Doc. 55–3728; Filed, May 6, 1955; 8:49 a. m.]

DEPARTMENT OF AGRICULTURE

Office of the Secretary

ARIZONA AND TEXAS

DISASTER ASSISTANCE; DELINEATION AND CERTIFICATION OF CERTAIN COUNTIES IN THE DROUGHT AREAS

Pursuant to Public Law 875, 81st Congress (42 U. S. C. 1855 et seq.), the President determined on the dates indicated that a major disaster occasioned by drought existed in the following states:

Arizona: April 26th, 1955.
Texas: July 21st, 1954.

Pursuant to the authority delegated to me by the Administrator, Federal Civil Defense Administration (18 F. R. 4609; 19 F. R. 2148; 19 F. R. 5364), and for the purposes of section 2 (d) of Public Law 38, 81st Congress, as amended by Public Law 115, 83d Congress, and section 301 of Public Law 480, 83d Congress certain counties in the State of Arizona were on April 27th, 1955 and certain counties in the State of Texas were on August 10th, 1954 (19 F. R. 5155), as amended (19 F. R. 5388; 19 F. R. 5957; 19 F. R. 6127; 19 F. R. 6417; 19 F. R. 6557; 19 F. R. 7547; 19 F. R. 8635; 20 F. R. 140; 20 F. R. 813 and 20 F. R. 1384) determined to be the areas affected by the major disaster by drought.

Pursuant to the aforesaid delegations, the counties set forth below were determined, on April 27th, 1955, to be the aforesaid major disaster area in the State of Arizona:

ARIZONA

Apache.	Greenlee.
Coconino.	Mohave.
Gila.	Navajo.
Graham.	Yavapai.

Pursuant to the aforesaid delegations, the delineation and certification of counties in the drought area in the State of Texas, as above described are herewith amended by adding the counties as set forth below on April 26th, 1955 to the major disaster area in the State of Texas:

TEXAS

Andrews.	Martin.
Howard.	Nueces.
Kleberg.	

Done at Washington, D. C., this 3d day of May 1955.

[SEAL] TRUE D. MORSE,
Acting Secretary.

[F. R. Doc. 55–3722; Filed, May 6, 1955; 8:48 a. m.]

OFFICE OF THE GENERAL COUNSEL

DELEGATIONS OF AUTHORITY

The statement on delegations of authority made to the Soliictor and published in the FEDERAL REGISTER of April 2, 1949 (14 F. R. 923), is amended to read as follows:

The General Counsel, the Deputy General Counsel, the Assistant General Counsels, and the Staff Legal Officer, or persons acting in their stead, are authorized to certify documents as true copies of those on file in the Department pursuant to Title 28, United States Code, section 1733. The same officers and Attorneys in Charge of field offices of the Office of the General Counsel, or persons acting in their stead, are authorized to sign releases of claims of the United States against private persons for damage to or destruction of personal property of the Department. The General Counsel and the Staff Legal Officer, or persons acting in their stead, are authorized to allow or disallow claims pursuant to Title 28, United States Code, sections 2401 (b), 2671–2680.

Done at Washington, D. C., this 3d day of May 1955.

[SEAL] TRUE D. MORSE,
Acting Secretary.

[F. R. Doc. 55–3721; Filed, May 6, 1955; 8:47 a. m.]

FEDERAL POWER COMMISSION

[Docket Nos. G–6503, G–6624, G–6821, G–6823, G–6824, G–7771, G–7772, G–7407]

CONTINENTAL OIL CO. ET AL.

NOTICE OF CONTINUANCE OF HEARING

MAY 2, 1955.

In the matters of Continental Oil Company, Docket No. G–6503; Knox Oil Company, Docket No. G–6821; Wyopark Oil Company, Docket No. G–6823; Oxford Oil Company, Docket No. G–6824; Fred M. Manning, Docket No. G–7771; Estate of E. E. Brown, Docket No. G–7772; Fred Goodstein d/b/a Trigood Oil Company, Docket Nos. G–6624 and G–7407.

Upon consideration of the motion of Continental Oil Company, Knox Oil Company, Wyopark Oil Company, Oxford Oil Company, Fred M. Manning and Fred Goodstein d/b/a Trigood Oil Company, filed April 27, 1955, for continuance of the hearing in the above-designated matter, now scheduled for May 10, 1955;

Notice is hereby given that said hearing is postponed to a date to be hereafter fixed by further notice.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55–3708; Filed, May 6, 1955; 8:45 a. m.]

[Docket No. G–6884]

HERMAN AND GEORGE R. BROWN

NOTICE OF APPLICATION AND DATE OF HEARING

MAY 3, 1955.

Take notice that Herman and George R. Brown (hereinafter referred to as "Applicant"), a co-partnership whose address is 12th Floor, San Jacinto Building, Houston, Texas, filed an application on November 30, 1954, for a certificate of public convenience and necessity, pursuant to Section 7 of the Natural Gas Act, authorizing Applicant to render service as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the application which is on file with the Commission and open for public inspection.

Applicant proposes to sell natural gas produced from the Bloomington Field, Victoria County, Texas, to United Gas Pipe Line Company at 16.1968 cents per Mcf for transportation in interstate commerce for resale.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on May 26, 1955, at 9:30 a. m., e. d. s. t., in a Hearing Room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such application: *Provided, however,* That the Commission may, after a non-contested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before May 20, 1955. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55–3709; Filed, May 6, 1955; 8:45 a. m.]

[Docket No. G–7285]

GEORGE E. OSTROM

NOTICE OF APPLICATION AND DATE OF HEARING

MAY 3, 1955.

Take notice that George E. Ostrom (Applicant), an individual whose address is 200 Alworth Building, Duluth 2, Minnesota, filed an application on December 1, 1954, for a certificate of public convenience and necessity, pursuant to

section 7 of the Natural Gas Act, authorizing Applicant to render service as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the application which is on file with the Commission and open for public inspection.

Applicant proposes to sell natural gas produced in Randolph County, West Virginia, to Cumberland and Allegheny Gas Company at 20 cents per Mcf, for transportation in interstate commerce for resale. The rate of delivery will be 30,000 Mcf per day.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on May 24, 1955, at 9:35 a. m., e. d. s. t., in a Hearing Room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such application: *Provided, however,* That the Commission may, after a non-contested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before May 19, 1955. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55-3710; Filed, May 6, 1955; 8:45 a. m.]

[Docket No. G-8598]

MICHAELIS DRILLING CO. ET AL.

NOTICE OF APPLICATION AND DATE OF HEARING

MAY 3, 1955.

Take notice that Michaelis Drilling Company, et al., (Applicant), a partnership whose address is 1019 East Second Street, Wichita, Kansas, filed an application on March 17, 1955, for a certificate of public convenience and necessity, pursuant to section 7 of the Natural Gas Act, authorizing Applicant to render service as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the application which is on file with the Commission and open for public inspection.

Applicant proposes to sell natural gas produced from the Hugoton Field, Haskell and Seward Counties, Kansas, to Colorado Interstate Gas Company at 12 cents per Mcf, for transportation in interstate commerce for resale.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on May 26, 1955, at 9:35 a. m., e. d. s. t., in a Hearing Room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such application: *Provided, however,* That the Commission may, after a non-contested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before May 20, 1955. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55-3711; Filed, May 6, 1955; 8:46 a. m.]

[Docket No. G-8609]

TEXAS CO.

NOTICE OF APPLICATION AND DATE OF HEARING

MAY 3, 1955.

Take notice that the Texas Company (Applicant), a Delaware corporation whose address is Houston, Texas, filed an application on March 17, 1955, for a certificate of public convenience and necessity, pursuant to section 7 of the Natural Gas Act, authorizing Applicant to render service as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the application which is on file with the Commission and open for public inspection.

Applicant proposes to sell natural gas produced from the Hugoton Field, Morton, Seward and Stevens Counties, Kansas, to Northern Natural Gas Company at 12 cents per Mcf, for transportation in interstate commerce for resale. The rate of delivery will be 131,824 Mcf per month.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on May 24, 1955, at 9:40 a. m., e. d. s. t., in a Hearing Room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such application: *Provided, however,* That the Commission may, after a non-contested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before May 19, 1955. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55-3712; Filed, May 6, 1955; 8:46 a. m.]

[Docket No. G-8611]

SUNRAY OIL CORP.

NOTICE OF APPLICATION AND DATE OF HEARING

MAY 3, 1955.

Take notice that Sunray Oil Corporation (Applicant), a Delaware corporation whose address is Tulsa, Oklahoma, filed an application on March 17, 1955 for a certificate of public convenience and necessity, pursuant to section 7 of the Natural Gas Act, authorizing Applicant to render service as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the application which is on file with the Commission and open for public inspection.

Applicant proposes to sell natural gas produced from the Indian Lake Field, Madison Parish, Louisiana, to United Fuel Gas Company at 16 cents per Mcf, for transportation in interstate commerce for resale. The rate of delivery will be 4,760 Mcf per month.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on May 24, 1955, at 9:45 a. m., e. d. s. t., in a Hearing Room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such application: *Provided, however,* That the Commission may, after a non-contested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in ac-

cordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before May 19, 1955. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55-3713; Filed, May 6, 1955; 8:46 a. m.]

[Docket No. G-8613]

CHAMPLIN REFINING CO.

NOTICE OF APPLICATION AND DATE OF HEARING

MAY 3, 1955.

Take notice that Champlin Refining Company (Applicant), a New Mexico corporation whose address is 318 West Cherokee Avenue, Enid, Oklahoma, filed an application on March 18, 1955, for a certificate of public convenience and necessity, pursuant to section 7 of the Natural Gas Act, authorizing Applicant to render service as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the application which is on file with the Commission and open for public inspection.

Applicant proposes to sell natural gas produced from the Greenwood Field, Morton County, Kansas, to Colorado Interstate Gas Company at 12 cents per Mcf, for transportation in interstate commerce for resale.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on May 26, 1955, at 9:40 a. m., e. d. s. t., in a Hearing Room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such application: *Provided, however,* That the Commission may, after a noncontested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before May 20, 1955. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55-3714; Filed, May 6, 1955; 8:46 a. m.]

[Docket No. G-8726]

JANET WHITE

NOTICE OF APPLICATION AND DATE OF HEARING

MAY 3, 1955.

Take notice that Janet White (Applicant), an individual whose address is 3204 23d Avenue, Meridian, Mississippi, filed an application on April 6, 1955, for a certificate of public convenience and necessity, pursuant to section 7 of the Natural Gas Act, authorizing Applicant to render service as hereinafter described, subject to the jurisdiction of the Commission, all as more fully represented in the application which is on file with the Commission and open for public inspection.

Applicant proposes to sell natural gas produced from the Pistol Ridge Field, Forrest and Pearl River Counties, Mississippi, to United Gas Pipe Line Company, for transportation in interstate commerce for resale.

This matter is one that should be disposed of as promptly as possible under the applicable rules and regulations and to that end:

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Power Commission by sections 7 and 15 of the Natural Gas Act, and the Commission's rules of practice and procedure, a hearing will be held on May 24, 1955, at 9:30 a. m., e. d. s. t., in a Hearing Room of the Federal Power Commission, 441 G Street NW., Washington, D. C., concerning the matters involved in and the issues presented by such application: *Provided, however,* That the Commission may, after a noncontested hearing, dispose of the proceedings pursuant to the provisions of § 1.30 (c) (1) or (2) of the Commission's rules of practice and procedure.

Protests or petitions to intervene may be filed with the Federal Power Commission, Washington 25, D. C., in accordance with the rules of practice and procedure (18 CFR 1.8 or 1.10) on or before May 19, 1955. Failure of any party to appear at and participate in the hearing shall be construed as waiver of and concurrence in omission herein of the intermediate decision procedure in cases where a request therefor is made.

[SEAL] LEON M. FUQUAY,
Secretary.

[F. R. Doc. 55-3715; Filed, May 6, 1955; 8:46 a. m.]

CIVIL AERONAUTICS BOARD

[Docket No. 6786]

PIONEER AIR LINES; CERTIFICATE RENEWAL CASE

NOTICE OF POSTPONEMENT OF PREHEARING CONFERENCE

In the matter of the application of Pioneer Air Lines under section 401 of the Civil Aeronautics Act of 1938, as amended, for a renewal of its temporary certificate.

Notice is hereby given that the prehearing conference in the above-entitled matter now assigned for May 13 is postponed to May 17, 1955. This conference will be held at 2:00 p. m., e. d. s. t., in Room E-210, Temporary Building No. 5, Seventeenth and Constitution Avenue NW., Washington, D. C., before Examiner Herbert K. Bryan.

Dated at Washington, D. C., May 4, 1955.

[SEAL] FRANCIS W. BROWN,
Chief Examiner.

[F. R. Doc. 55-3734; Filed, May 6, 1955; 8:50 a. m.]

[Docket No. 7124]

LINEAS AEREAS COSTARRICENSES, S. A.

NOTICE OF PREHEARING CONFERENCE

In the matter of the application of Lineas Aereas Costarricenses, S. A., for amendment of its foreign air carrier permit for authority to provide service between San Jose, Costa Rica and San Juan, Puerto Rico via Panama City.

Notice is hereby given that a prehearing conference in the above-entitled matter is assigned to be held on May 12, 1955, at 10:00 a. m., e. d. s. t., in Room E-210, Temporary Building No. 5, Seventeenth and Constitution Avenue NW., Washington, D. C., before Examiner Joseph L. Fitzmaurice.

Dated at Washington, D. C., May 4, 1955.

[SEAL] FRANCIS W. BROWN,
Chief Examiner.

[F. R. Doc. 55-3733; Filed, May 6, 1955; 8:50 a. m.]

INTERSTATE COMMERCE COMMISSION

FOURTH SECTION APPLICATIONS FOR RELIEF

MAY 4, 1955.

Protests to the granting of an application must be prepared in accordance with Rule 40 of the general rules of practice (49 CFR 1.40) and filed within 15 days from the date of publication of this notice in the FEDERAL REGISTER.

LONG-AND-SHORT HAUL

FSA No. 30588: Class rates from and to Boutte and Luling, La. Filed by F. C. Kratzmeir, Agent, for interested rail carriers. Rates on various commodities moving under column exceptions ratings or rates made percentages of the docket 13535 first-class rates, between Boutte and Luling, La., on the one hand, and points in southwestern, western trunk line, official, southern, and Illinois territories, on the other.

Grounds for relief: Short-line distance formula, circuity and across country competition.

Tariff: Supplement 294 to Agent Kratzmeir's I. C. C. 3571, and two other tariffs.

FSA No. 30589: Moulding sand to Tonkawa, Okla. Filed by F. C. Kratzmeir, Agent, for interested rail carriers. Rates on moulding sand, carloads, from Tishomingo, Miss., Camden, Hollow Rock, Lipe, Sawyers Mill, and Lexington, Tenn., to Tonkawa, Okla.

Grounds for relief: Short-line distance formula and circuity.

Tariff: Supplement 16 to Agent Kratzmeir's I. C. C. 4135.

FSA No. 30590: Petroleum and related articles from Banquete, Tex. Filed by F. C. Kratzmeir, Agent, for interested rail carriers. Rates on petroleum, petroleum products and related articles, carloads, from Banquete, Tex., to points in southwestern territory and adjacent points.

Grounds for relief: Short-line distance formula, circuity, and origin group relations.

Tariff: Supplement 55 to Agent Kratzmeir's I. C. C. 4086.

FSA No. 30591: Petroleum—Southwest to Illinois. Filed by F. C. Kratzmeir, Agent, for interested rail carriers. Rates on petroleum and related articles, carloads, from specified points in Arkansas, Kansas, Louisiana, Missouri, New Mexico, Oklahoma, and Texas, to Ozark, Simpson, Grantsburg, Reevesville, Big Bay, Metropolis, and Brookport, Ill.

Grounds for relief: Short-line distance formula, circuity and maintenance of destination group relations.

Tariff: Supplement 241 to Agent Kratzmeir's I. C. C. 3825.

FSA No. 30592: Woodpulp to Bound Brook and South Bound Brook, N. J. Filed by R. E. Boyle, Jr., Agent, for interested rail carriers. Rates on woodpulp, not powdered, noibn, carloads, from Fernandina, Fla., to Bound Brook and South Bound Brook, N. J.

Grounds for relief: Shortline distance formula and circuity.

Tariff: Supplement 86 to Agent Spaninger's I. C. C. No. 1260.

FSA No. 30593: Woodpulp to Newark, Ohio. Filed by R. E. Boyle, Jr., Agent, for interested rail carriers. Rates on woodpulp, not powdered, noibn, carloads, from specified points in southern territory to Newark, Ohio.

Grounds for relief: Short-line distance formula and circuity.

Tariff: Supplement 86 to Agent Spaninger's I. C. C. No. 1260.

FSA No. 30594: Woodpulp—Rosser, Ga., to Western Trunk Line Territory. Filed by R. E. Boyle, Jr., Agent, for interested rail carriers. Rates on woodpulp, not powdered, noibn, carloads, from Rosser, Ga., to specified points in western trunk line territory.

Grounds for relief: Short-line distance formula and circuity.

Tariff: Supplement 86 to Agent Spaninger's I. C. C. 1260.

FSA No. 30595: Woodpulp—Foley, Fla., to Official Territory. Filed by R. E. Boyle, Jr., Agent, for interested rail carriers. Rates on woodpulp, not powdered, noibn, carloads, from Foley, Fla., to specified points in official territory.

Grounds for relief: Circuitous routes.

Tariff: Supplement 86 to Agent Spaninger's I. C. C. No. 1260.

FSA No. 30596: Soap compounds—Kansas City, Kans.-Mo., to Des Moines, Iowa, and Omaha, Nebr. Filed by W. J. Prueter, Agent, for interested rail carriers. Rates on soap, soap powders and compounds, cleaning, scouring and washing, carloads, from Kansas City, Kans.-Mo., to Des Moines, Iowa and Omaha, Nebr.

Grounds for relief: Circuitous routes.

Tariff: Supplement 144 to Agent Prueter's I. C. C. A-3748 and four other tariffs.

FSA No. 30597: Aluminum articles—Pacific Coast to Illinois and Missouri. Filed by W. J. Prueter, Agent, for interested rail carriers. Rates on aluminum and aluminum articles, carloads, from specified points in Pacific Coast territory to specified points in Illinois and Missouri.

Grounds for relief: Circuitous routes.

FSA No. 30598: Commodities from or to Claremont Center and West Claremont, N. H. Filed by Claremont and Concord Railway Company, for interested rail carriers. Rates on various commodities, carloads and less-than-carloads, between Claremont Center and West Claremont, N. H., on the one hand, and points in the U. S. and Canada, on the other.

Grounds for relief: New station.

Tariff: Claremont and Concord Railway tariff I. C. C. No. 2.

By the Commission.

[SEAL] HAROLD D. McCOY, *Secretary.*

[F. R. Doc. 55-3724; Filed, May 6, 1955; 8:48 a. m.]

SECURITIES AND EXCHANGE COMMISSION

[File No. 7-1675]

AMERICAN MACHINE & FOUNDRY CO.

NOTICE OF APPLICATION FOR UNLISTED TRADING PRIVILEGES, AND OF OPPORTUNITY FOR HEARING

At a regular session of the Securities and Exchange Commission, held at its office in the City of Washington, D. C., on the 2d day of May 1955.

The Boston Stock Exchange pursuant to section 12 (f) (2) of the Securities Exchange Act of 1934 and Rule X-12F-1 thereunder, has made application for unlisted trading privileges in Common Stock, $7 Par Value, of American Machine & Foundry Company, a security listed and registered on New York Stock Exchange and Midwest Stock Exchange.

Rule X-12F-1 provides that the applicant shall furnish a copy of the application to the issuer and to every exchange on which the security is listed or already admitted to unlisted trading privileges. The application is available for public inspection at the Commission's principal office in Washington, D. C.

Notice is hereby given that, upon request of any interested person received prior to May 18, 1955, the Commission will set this matter down for hearing. In addition, any interested person may submit his views or any additional facts bearing on this application by means of a letter addressed to the Secretary of the Securities and Exchange Commission, Washington, D. C. If no one requests a hearing on this matter, this application will be determined by order of the Commission on the basis of the facts stated in the application, and other information contained in the official file of the Commission pertaining to this matter.

By the Commission.

[SEAL] ORVAL L. DUBOIS, *Secretary.*

[F. R. Doc. 55-3716; Filed, May 6, 1955; 8:46 a. m.]

DEPARTMENT OF JUSTICE

Office of Alien Property

[Vesting Order 19281, Amdt.]

LOUISE BARBARA RICHTER KEHL ET AL.

In re: Interest in real property owned by Louise Barbara Richter Kehl and others; D-28-13133.

Vesting Order 19281, as amended, is hereby amended to read as follows:

Under the authority of the Trading With the Enemy Act, as amended (50 U. S. C. App. and Sup. 1-40); Public Law 181, 82d Congress, 65 Stat. 451; Executive Order 9193, as amended by Executive Order 9567) 3 CFR, 1943 Cum. Supp.; 3 CFR, 1945 Supp.); Executive Order 9788 (3 CFR, 1946 Supp.) and Executive Order 9989 (3 CFR, 1948 Supp.), and pursuant to law, after investigation, it is hereby found:

1. That Louise Barbara Richter Kehl, Gottlieb Richter and Richard Albert, also known as Richard Albert Richter, each of whose last known address is Germany, on or since December 11, 1941, and prior to January 1, 1947, were residents of Germany and are, and prior to January 1, 1947, were, nationals of a designated enemy country (Germany);

2. That the property described as follows:

a. An undivided eleven-twentieths (11/20ths) interest in certain real property situated in the City of Margate, County of Atlantic, State of New Jersey, particularly described as Lot Seven (7) and Lot Twelve (12), in Block 304B, on Map of Margate City, New Jersey, by W. I. Risley, C. E. and Surveyor, revised March 1926, filed November 8, 1945, File #1023, together with all hereditaments, fixtures, improvements and appurtenances thereto, and any and all claims for rents, refunds, benefits or other payments arising from the ownership of such property, and

b. All right, title and interest of the persons named in subparagraph 1 hereof, in and to all insurance policies covering the premises described in subparagraph 2 hereof, and any and all extensions or renewals thereof.

is property which is and prior to January 1, 1947, was within the United States owned or controlled by, payable or deliverable to, held on behalf of or on account of, or owing to, or which is evidence of ownership or control by, the aforesaid nationals of a designated enemy country (Germany);

and it is hereby determined:

3. That the national interest of the United States requires that the persons identified in subparagraph 1 hereof, be treated as persons who are and prior to

January 1, 1947, were nationals of a designated enemy country (Germany).

All determinations and all action required by law, including appropriate consultation and certification, having been made and taken, and, it being deemed necessary in the national interest,

There is hereby vested in the Attorney General of the United States the property described in subparagraph 2 hereof, to be held, used, administered, liquidated, sold, or otherwise dealt with in the interest of and for the benefit of the United States.

The terms "national" and "designated enemy country" as used herein shall have the meanings prescribed in section 10 of Executive Order 9193, as amended.

Executed at Washington, D. C., on May 4, 1955.

For the Attorney General.

[SEAL] DALLAS S. TOWNSEND,
Assistant Attorney General,
Director, Office of Alien Property.

[F. R. Doc. 55-3726; Filed, May 6, 1955; 8:48 a. m.]